

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
PUBLIC NOTICE NO. 20211026 IN0004677 – D
DATE OF NOTICE: OCTOBER 26, 2021
DATE RESPONSE DUE: NOVEMBER 26, 2021

The Office of Water Quality proposes the following NPDES DRAFT PERMIT:

MINOR - RENEWAL

CITIZENS THERMAL C.C. – PERRY K STEAM PLANT, Permit No. IN0004677, MARION COUNTY, 366 Kentucky Av., Indianapolis, IN. This steam generating industrial facility discharges 43 million gallons daily of process and non-process wastewater to the West Fork of the White River.

Permit Manager: Taylor Wissel, 317/234-4260, twissel@idem.in.gov. Posted online at <https://www.in.gov/idem/public-notices/>.

PROCEDURES TO FILE A RESPONSE

Draft can be viewed or copied (10¢ per page) at IDEM/OWQ NPDES PS, 100 North Senate Avenue, (Rm 1203) Indianapolis, IN, 46204 (east end elevators) from 9 – 4, Mon - Fri, (except state holidays). A copy of the Draft Permit is on file at the local County Health Department. Please tell others you think would be interested in this matter. For your rights & responsibilities see: Public Notices: <https://www.in.gov/idem/public-notices/>; Citizen Guide: <https://www.in.gov/idem/resources/citizens-guide-to-idem/>. Please tell others whom you think would be interested in this matter.

Response Comments: The proposed decision to issue a permit is tentative. Interested persons are invited to submit written comments on the Draft permit. All comments must be postmarked no later than the Response Date noted to be considered in the decision to issue a Final permit. Deliver or mail all requests or comments to the attention of the Permit Writer at the above address, (mail code 65-42 PS).

To Request a Public Hearing:

Any person may request a Public Hearing. A written request must be submitted to the above address on or before the Response Date noted. The written request shall include: the name and address of the person making the request, the interest of the person making the request, persons represented by the person making the request, the reason for the request and the issues proposed for consideration at the Hearing. IDEM will determine whether to hold a Public Hearing based on the comments and the rationale for the request. Public Notice of such a Hearing will be published in at least one newspaper in the geographical area of the discharge and sent to anyone submitting written comments and/or making such request and whose name is on the mailing list at least 30 days prior to the Hearing.



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Eric J. Holcomb
Governor

Bruno Pigott
Commissioner

October 26, 2021

VIA ELECTRONIC MAIL

Mr. Todd Fuller, Director, Thermal Operations
Citizens Energy Group
366 Kentucky Avenue
Indianapolis, Indiana 46225

Dear Mr. Fuller:

Re: NPDES Permit No. IN0004677
Draft Permit
Citizens Thermal C.C. Perry K Steam Plant
Indianapolis, IN – Marion County

Your application and supporting documents have been reviewed and processed in accordance with rules adopted under 327 IAC 5. Enclosed is a copy of the draft NPDES Permit.

Pursuant to IC 13-15-5-1, IDEM will publish the draft permit document online at <https://www.in.gov/idem/public-notice/>. Additional information on public participation can be found in the "Citizens' Guide to IDEM", available at <https://www.in.gov/idem/resources/citizens-guide-to-idem/>. A 30-day comment period is available to solicit input from interested parties, including the public.

Please review this draft permit and associated documents carefully to become familiar with the proposed terms and conditions. Comments concerning the draft permit should be submitted in accordance with the procedure outlined in the enclosed public notice form. We suggest that you meet with us to discuss major concerns or objections you may have with the draft permit. Questions concerning this draft permit may be addressed to Taylor Wissel of my staff, at 317/234-4260 or twissel@idem.in.gov.

Sincerely,

Nikki Gardner

for

Richard Hamblin, Chief
Industrial NPDES Permits Section
Office of Water Quality

Enclosures



A State that Works

cc: Marion County Health Department
Kari Maxwell, Citizens Energy Group
Chief, Permits Section, U.S. EPA, Region 5
Andy Schmidt, IDEM
Richard Hamblin, IDEM

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Water Pollution Control Act, as amended, (33 U.S.C. 1251 et seq., the "Clean Water Act" or "CWA"), and IDEM's authority under IC 13-15,

CITIZENS ENERGY GROUP
CITIZENS THERMAL C.C. PERRY K STEAM PLANT

is authorized to discharge from a steam and electric generating facility that is located at 366 Kentucky Avenue, Indianapolis, Indiana, to receiving waters identified as the West Fork of the White River in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, and III hereof. This permit may be revoked for the nonpayment of applicable fees in accordance with IC 13-18-20.

Effective Date: _____

Expiration Date: _____

In order to receive authorization to discharge beyond the date of expiration, the permittee shall submit such information and forms as are required by the Indiana Department of Environmental Management no later than 180 days prior to the date of expiration.

Issued on _____ for the Indiana Department of Environmental Management.

Jerry Dittmer, Chief
Permits Branch
Office of Water Quality

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- The permittee is authorized to discharge from the outfall listed below in accordance with the terms and conditions of this permit. The permittee is authorized to discharge from Outfall 001, located at Latitude 39° 45' 43.4", Longitude -86° 10' 22.2". The discharge is limited to non-contact cooling water, steam condensate, and boiler blowdown. Samples taken in compliance with the monitoring requirements below shall be taken at a point representative of the discharge but prior to entry into the West Fork of the White River. Such discharge shall be limited and monitored by the permittee as specified below:

DISCHARGE LIMITATIONS [1][2]

Outfall 001

<u>Parameter</u>	Quantity or Loading			Quality or Concentration			Monitoring Requirements	
	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Units</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow								
Intake	Report	Report	MGD	-----	-----	----	Daily	24-Hr. Total
Effluent	Report	Report	MGD	-----	-----	----	Daily	24-Hr. Total
Temperature [8][9][13]								
Intake	-----	-----	----	Report	Report	°F	Daily	Continuous
Effluent	-----	-----	----	Report	Report	°F	Daily	Continuous
Mixed River [10]	-----	-----	----	Report	Report	°F	Daily	Report
TRC [6]								
Continuous [5][11]	-----	-----	----	0.02	0.04	mg/l	Daily	Grab
Intermittent [12]	-----	-----	----	-----	0.2	mg/l	Daily	Grab
Chlorination [12]								
Frequency	-----	-----	----	-----	4	times/day	Daily	Report
Duration	-----	-----	----	-----	40	min/dose	Daily	Report
Mercury [4][7]	-----	-----	----	Report	Report	ng/l	1 X Yearly	Grab

Table 2

<u>Parameter</u>	Quality or Concentration		<u>Units</u>	Monitoring Requirements	
	<u>Daily Minimum</u>	<u>Daily Maximum</u>		<u>Measurement Frequency</u>	<u>Sample Type</u>
pH [3]	6.0	9.0	s.u.	1 X Weekly	Grab

[1] See Part I.B. of the permit for the minimum narrative limitations.

- [2] In the event that a new water treatment additive is to be used that will contribute to this Outfall, or changes are to be made in the use of water treatment additives, including dosage, the permittee must apply for and receive approval from IDEM prior to such discharge. Discharges of any such additives must meet Indiana water quality standards. The permittee must apply for permission to use water treatment additives by completing and submitting State Form 50000 (Application for Approval to Use Water Treatment Additives) currently available at: <https://www.in.gov/ide/forms/ide-agency-forms/>.
- [3] If the permittee collects more than one grab sample on a given day for pH, the values shall not be averaged for reporting daily maximums or daily minimums. The permittee must report the individual minimum and the individual maximum pH value of any sample during the month on the Monthly Monitoring Report form.
- [4] The permittee shall measure and report the identified metal as total recoverable metal.
- [5] The water quality based effluent limits (WQBELs) for Total Residual Chlorine (TRC) – continuous are less than the limit of quantitation (LOQ) as specified in footnote [6]. Compliance with this permit will be demonstrated if the effluent concentrations measured are less than the LOQ.

If the measured concentration of Total Residual Chlorine (TRC) – continuous is greater than the water quality based effluent limitations and above the respective LOD specified in footnote [6] in any three (3) consecutive analyses, or any five (5) out of nine (9) analyses, then the discharger shall:

- (1) Determine the source of the parameter through an evaluation of sampling techniques, analytical/laboratory procedures, and waste streams (including internal waste streams); and re-examine the chlorination /dechlorination procedures.
- (2) The sampling and analysis for Total Residual Chlorine (TRC) – continuous shall be increased to 2 X Daily and remain at this increased sampling frequency until:
 - (a) The increased sampling frequency for Total Residual Chlorine (TRC) – continuous has been in place for at least five (5) days,
 - (b) At least nine (9) samples have been taken under this increased sampling frequency; and
 - (c) The measured concentration of Total Residual Chlorine (TRC) – continuous is less than the LOD specified in footnote [6] in at least seven (7) out of the nine (9) most recent analyses.

- [6] The following EPA approved test methods and associated LODs and LOQs are to be used in the analysis of the effluent samples. Alternative methods may be used if first approved by IDEM and EPA, if applicable.

<u>Parameter</u>	<u>Test Method</u>	<u>LOD</u>	<u>LOQ</u>
Chlorine, Total residual	4500-Cl D-2000, E-2000 or G-2000	0.02 mg/l	0.06 mg/l

Case-Specific LOD/LOQ

The permittee may determine and use a case-specific LOD or LOQ using the analytical method specified above, or any other analytical method which is approved by the Commissioner, and EPA if applicable, prior to use. The LOD shall be derived by the procedure specified for method detection limits contained in 40 CFR Part 136, Appendix B, and the LOQ shall be set equal to 3.18 times the LOD. Other methods may be used if first approved by the Commissioner.

- [7] Mercury monitoring shall be conducted annually of each year for the term of the permit using EPA Test Method 1631, Revision E and associated LOD and LOQ in the table below.

<u>Parameter</u>	<u>Test Method</u>	<u>LOD</u>	<u>LOQ</u>
Mercury	1631E	0.2 ng/l	0.5 ng/l

- [8] The following conditions apply for Temperature outside the mixing zone:
- (1) There shall be no abnormal temperature changes that may adversely affect aquatic life unless caused by natural conditions.
 - (2) The normal daily and seasonal temperature fluctuations that existed before the addition of heat due to other than natural causes shall be maintained.
 - (3) The maximum temperature rise at any time or place above natural shall not exceed five (5) degrees Fahrenheit (two and eight-tenths (2.8) degrees Celsius).

- [9] The discharge from Outfall 001, as determined at the edge of the mixing zone described in 327 IAC 2-1-4, shall not exceed the maximum limits in the following table more than one percent (1%) of the hours in the twelve (12) month period ending with any month.

At no time shall the water temperature of the discharge from Outfall 001 exceed the maximum limits in the following table by more than three degrees Fahrenheit (3°F) (one and seven-tenths degrees Celsius (1.7°C)).

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
°F	50	50	60	70	80	90	90	90	90	84	70	57
°C	10	10	15.6	21.1	26.7	32.2	32.2	32.2	32.2	28.9	21.1	14

- [10] The permittee will have the option of either meeting the limits in Footnote [9], above, at the end of pipe or meeting the limits with a mixed river temperature that takes into account the mixing zone allowed by 327 IAC 2-1-6(b). The mixed river temperature is to be determined using the following equation:

$$T_{MR} = T_U + \frac{Q_E(T_E - T_U)}{0.5(Q_U - Q_i) + Q_E}$$

where:

T_{MR} = mixed river temperature (°F)
 T_U = upstream river temperature (°F)
 T_E = effluent temperature (°F)
 Q_E = effluent flow (MGD)
 Q_U = receiving stream flow at USGS Gaging Station 03352953 (MGD)
 Q_i = intake flow (MGD)

The mixed river temperature shall be calculated using the hourly temperature data (see Footnote [13], below). The highest single value calculated as the mixed river temperature for each day shall be reported on the state monthly monitoring report (MMR) for each day. The highest single daily value calculated as the mixed river temperature for each month shall be reported on the federal discharge monitoring report (DMR) as the maximum daily temperature for that month.

- [11] Continuous chlorination is considered as all occurrences that do not meet the definition of intermittent chlorination, as described in 327 IAC 2-1-6 Table 1, Footnote [a]. These water quality based effluent limits (WQBELs) are applicable any time that the discharge of chlorine does not meet this intermittent definition.

- [12] This daily maximum limit for total residual chlorine is only applicable if the discharge of chlorine is intermittent. As required by 327 IAC 2-1-6 Table 1, Footnote [a], to be considered an intermittent discharge, total residual chlorine shall not be detected in the discharge for a period of more than forty (40) minutes in duration, and such periods shall be separated by at least five (5) hours. Simultaneous multi-unit chlorination is permitted.
- [13] Temperature measurements shall be recorded in one-hour intervals. For the intake and effluent temperature, the permittee must report the individual maximum temperature value measured during the day on the monthly monitoring report (MMR) form.

2. The permittee is authorized to discharge from the outfall listed below in accordance with the terms and conditions of this permit. The permittee is authorized to discharge from Outfall 101. The discharge is limited to boiler blowdown. Samples taken in compliance with the monitoring requirements below shall be taken at a point representative of the discharge but prior to commingling with other wastestreams. Such discharge shall be limited and monitored by the permittee as specified below:

DISCHARGE LIMITATIONS

Outfall 101

Table 1								
<u>Parameter</u>	<u>Quantity or Loading</u>			<u>Quality or Concentration</u>			<u>Monitoring Requirements</u>	
	<u>Monthly</u>	<u>Daily</u>	<u>Units</u>	<u>Monthly</u>	<u>Daily</u>	<u>Units</u>	<u>Measurement</u>	<u>Sample</u>
	<u>Average</u>	<u>Maximum</u>		<u>Average</u>	<u>Maximum</u>		<u>Frequency</u>	<u>Type</u>
Flow	Report	Report	MGD	-----	-----		Daily	24-Hr. Total
TSS	-----	-----	----	30	100	mg/l	1 X Weekly	24-Hr. Composite
Oil & Grease	-----	-----	----	15	20	mg/l	6 X Annually [1]	Grab

[1] 6 X annual samples shall be taken every other month.

B. MINIMUM NARRATIVE LIMITATIONS

At all times the discharge from any and all point sources specified within this permit shall not cause receiving waters:

1. including waters within the mixing zone, to contain substances, materials, floating debris, oil, scum attributable to municipal, industrial, agricultural, and other land use practices, or other discharges that do any of the following:
 - a. will settle to form putrescent or otherwise objectionable deposits;
 - b. are in amounts sufficient to be unsightly or deleterious;
 - c. produce color, visible oil sheen, odor, or other conditions in such degree as to create a nuisance;
 - d. are in amounts sufficient to be acutely toxic to , or to otherwise severely injure or kill aquatic life, other animals, plants, or humans;
 - e. are in concentrations or combinations that will cause or contribute to the growth of aquatic plants or algae to such a degree as to create a nuisance, be unsightly, or otherwise impair the designated uses.
2. outside the mixing zone, to contain substances in concentrations that on the basis of available scientific data are believed to be sufficient to injure, be chronically toxic to, or be carcinogenic, mutagenic, or teratogenic to humans, animals, aquatic life, or plants.

C. MONITORING AND REPORTING

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge flow and shall be taken at times which reflect the full range and concentration of effluent parameters normally expected to be present. Samples shall not be taken at times to avoid showing elevated levels of any parameters.

2. Monthly Reporting

The permittee shall submit monitoring reports to the Indiana Department of Environmental Management (IDEM) containing results obtained during the previous month and shall be submitted no later than the 28th day of the month following each completed monitoring period. The first report shall be submitted by the 28th day of the month following the month in which the permit becomes effective.

These reports shall include, but not necessarily be limited to, the Discharge Monitoring Report (DMR) and the Monthly Monitoring Report (MMR). All reports shall be submitted electronically by using the NetDMR application, upon registration, receipt of the NetDMR Subscriber Agreement, and IDEM approval of the proposed NetDMR Signatory. Access the NetDMR website (for initial registration and DMR/MMR submittal) via CDX at: <https://cdx.epa.gov/>. The Regional Administrator may request the permittee to submit monitoring reports to the Environmental Protection Agency if it is deemed necessary to assure compliance with the permit. See Part II.C.10 of this permit for Future Electronic Reporting Requirements.

- a. Calculations that require averaging of measurements of daily values (both concentrations and mass) shall use an arithmetic mean, except the monthly average for *E. coli* shall be calculated as a geometric mean.
- b. Daily effluent values (both mass and concentration) that are less than the LOQ that are used to determine the monthly average effluent level shall be accommodated in calculation of the average using statistical methods that have been approved by the Commissioner.
- c. Effluent concentrations less than the LOD shall be reported on the Discharge Monitoring Report (DMR) forms as < (less than) the value of the LOD. For example, if a substance is not detected at a concentration of 0.1 µg/l, report the value as <0.1 µg/l.
- d. Effluent concentrations greater than or equal to the LOD and less than the LOQ that are reported on a DMR shall be reported as the actual value and annotated on the DMR to indicate that the value is not quantifiable.
- e. Mass discharge values which are calculated from concentrations reported as less than the value of the limit of detection shall be reported as less than the corresponding mass discharge value.
- f. Mass discharge values that are calculated from effluent concentrations greater than the limit of detection shall be reported as the calculated value.

3. Definitions

- a. "Monthly Average" means the total mass or flow-weighted concentration of all daily discharges during a calendar month on which daily discharges are sampled or measured, divided by the number of daily discharges sampled and/or measured during such calendar month.

The monthly average discharge limitation is the highest allowable average monthly discharge for any calendar month.

- b. “Daily Discharge” means the total mass of a pollutant discharged during the calendar day or, in the case of a pollutant limited in terms other than mass pursuant to 327 IAC 5-2-11(e), the average concentration or other measurement of the pollutant specified over the calendar day or any twenty-four hour period that reasonably represents the calendar day for the purposes of sampling.
- c. “Daily Maximum” means the maximum allowable daily discharge for any calendar day.
- d. A “24-hour composite sample” means a sample consisting of at least 3 individual flow-proportioned samples of wastewater, taken by the grab sample method or by an automatic sampler, which are taken at approximately equally spaced time intervals for the duration of the discharge within a 24-hour period and which are combined prior to analysis. A flow-proportioned composite sample may be obtained by:
 - (1) recording the discharge flow rate at the time each individual sample is taken,
 - (2) adding together the discharge flow rates recorded from each individuals sampling time to formulate the “total flow” value,
 - (3) the discharge flow rate of each individual sampling time is divided by the total flow value to determine its percentage of the total flow value,
 - (4) then multiply the volume of the total composite sample by each individual sample’s percentage to determine the volume of that individual sample which will be included in the total composite sample.
- e. “Concentration” means the weight of any given material present in a unit volume of liquid. Unless otherwise indicated in this permit, concentration values shall be expressed in milligrams per liter (mg/l).
- f. The “Regional Administrator” is defined as the Region 5 Administrator, U.S. EPA, located at 77 West Jackson Boulevard, Chicago, Illinois 60604.
- g. The “Commissioner” is defined as the Commissioner of the Indiana Department of Environmental Management, which is located at the following address: 100 North Senate Avenue, Indianapolis, Indiana 46204.

- h. "Limit of Detection" or "LOD" means the minimum concentration of a substance that can be measured and reported with ninety-nine percent (99%) confidence that the analyte concentration is greater than zero (0) for a particular analytical method and sample matrix.
- i. "Limit of Quantitation" or "LOQ" means a measurement of the concentration of a contaminant obtained by using a specified laboratory procedure calibrated at a specified concentration above the method detection level. It is considered the lowest concentration at which a particular contaminant can be quantitatively measured using a specified laboratory procedure for monitoring of the contaminant. This term is also sometimes called limit of quantification or quantification level.
- j. "Method Detection Level" or "MDL" means the minimum concentration of an analyte (substance) that can be measured and reported with a ninety-nine percent (99%) confidence that the analyte concentration is greater than zero (0) as determined by procedure set forth in 40 CFR 136, Appendix B. The method detection level or MDL is equivalent to the LOD.
- k. "Grab Sample" means a sample which is taken from a wastestream on a one-time basis without consideration of the flow rate of the wastestream and without considerations of time.

4. Test Procedures

The analytical and sampling methods used shall conform to the version of 40 CFR 136 incorporated by reference in 327 IAC 5. Different but equivalent methods are allowable if they receive the prior written approval of the Commissioner and the U.S. Environmental Protection Agency. When more than one test procedure is approved for the purposes of the NPDES program under 40 CFR 136 for the analysis of a pollutant or pollutant parameter, the test procedure must be sufficiently sensitive as defined at 40 CFR 122.21(e)(3) and 122.44(i)(1)(iv).

5. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall maintain records of all monitoring information and monitoring activities, including:

- a. The date, exact place and time of sampling or measurement;
- b. The person(s) who performed the sampling or measurements;

- c. The date(s) analyses were performed;
- d. The person(s) who performed the analyses;
- e. The analytical techniques or methods used; and
- f. The results of such measurements and analyses.

6. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of this monitoring shall be included in the calculation and reporting of the values required in the monthly Discharge Monitoring Report (DMR) and Monthly Monitoring Report (MMR). Such increased frequency shall also be indicated. Other monitoring data not specifically required in this permit (such as internal process or internal waste stream data) which is collected by or for the permittee need not be submitted unless requested by the Commissioner.

7. Records Retention

All records and information resulting from the monitoring activities required by this permit, including all records of analyses performed and calibration and maintenance of instrumentation and recording from continuous monitoring instrumentation, shall be retained for a minimum of three (3) years. In cases where the original records are kept at another location, a copy of all such records shall be kept at the permitted facility. The three years shall be extended:

- a. automatically during the course of any unresolved litigation regarding the discharge of pollutants by the permittee or regarding promulgated effluent guidelines applicable to the permittee; or
- b. as requested by the Regional Administrator or the Indiana Department of Environmental Management.

D. REOPENING CLAUSES

This permit may be modified, or alternately, revoked and reissued, after public notice and opportunity for hearing:

- 1. to comply with any applicable effluent limitation or standard issued or approved under 301(b)(2)(C),(D) and (E), 304 (b)(2), and 307(a)(2) of the Clean Water Act, if the effluent limitation or standard so issued or approved:

- a. contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - b. controls any pollutant not limited in the permit.
2. for any of the causes listed under 327 IAC 5-2-16.
3. to include a case-specific Limit of Detection (LOD) and/or Limit of Quantitation (LOQ). The permittee must demonstrate that such action is warranted in accordance with the procedures specified under Appendix B, 40 CFR Part 136, using the most sensitive analytical methods approved by EPA under 40 CFR Part 136, or approved by the Commissioner.
4. to comply with any applicable standards, regulations and requirements issued or approved under section 316(b) of the Clean Water Act.
5. to include verifiable and enforceable permit conditions that ensure the systems of technologies will perform as demonstrated or to include additional studies if the results of the impingement technology optimization study warrant such action.

PART II

STANDARD CONDITIONS FOR NPDES PERMITS

A. GENERAL CONDITIONS

1. Duty to Comply

The permittee shall comply with all terms and conditions of this permit in accordance with 327 IAC 5-2-8(1) and all other requirements of 327 IAC 5-2-8. Any permit noncompliance constitutes a violation of the Clean Water Act and IC 13 and is grounds for enforcement action or permit termination, revocation and reissuance, modification, or denial of a permit renewal application.

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.

2. Duty to Mitigate

In accordance with 327 IAC 5-2-8(3), the permittee shall take all reasonable steps to minimize or correct any adverse impact to the environment resulting from noncompliance with this permit. During periods of noncompliance, the permittee shall conduct such accelerated or additional monitoring for the affected parameters, as appropriate or as requested by IDEM, to determine the nature and impact of the noncompliance.

3. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must obtain and submit an application for renewal of this permit in accordance with 327 IAC 5-2-8(2). It is the permittee's responsibility to obtain and submit the application. In accordance with 327 IAC 5-2-3(c), the owner of the facility or operation from which a discharge of pollutants occurs is responsible for applying for and obtaining the NPDES permit, except where the facility or operation is operated by a person other than an employee of the owner in which case it is the operator's responsibility to apply for and obtain the permit. Pursuant to 327 IAC 5-3-2(a)(2), the application must be submitted at least 180 days before the expiration date of this permit. This deadline may be extended if all of the following occur:

- a. permission is requested in writing before such deadline;
- b. IDEM grants permission to submit the application after the deadline; and
- c. the application is received no later than the permit expiration date.

4. Permit Transfers

In accordance with 327 IAC 5-2-8(4)(D), this permit is nontransferable to any person except in accordance with 327 IAC 5-2-6(c). This permit may be transferred to another person by the permittee, without modification or revocation and reissuance being required under 327 IAC 5-2-16(c)(1) or 16(e)(4), if the following occurs:

- a. the current permittee notified the Commissioner at least thirty (30) days in advance of the proposed transfer date;
- b. a written agreement containing a specific date of transfer of permit responsibility and coverage between the current permittee and the transferee (including acknowledgment that the existing permittee is liable for violations up to that date, and the transferee is liable for violations from that date on) is submitted to the Commissioner;
- c. the transferee certifies in writing to the Commissioner their intent to operate the facility without making such material and substantial alterations or additions to the facility as would significantly change the nature or quantities of pollutants discharged and thus constitute cause for permit modification under 327 IAC 5-2-16(d). However, the Commissioner may allow a temporary transfer of the permit without permit modification for good cause, e.g., to enable the transferee to purge and empty the facility's treatment system prior to making alterations, despite the transferee's intent to make such material and substantial alterations or additions to the facility; and
- d. the Commissioner, within thirty (30) days, does not notify the current permittee and the transferee of the intent to modify, revoke and reissue, or terminate the permit and to require that a new application be filed rather than agreeing to the transfer of the permit.

The Commissioner may require modification or revocation and reissuance of the permit to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act or state law.

5. Permit Actions

- a. In accordance with 327 IAC 5-2-16(b) and 327 IAC 5-2-8(4), this permit may be modified, revoked and reissued, or terminated for cause, including, but not limited to, the following:
 - (1) Violation of any terms or conditions of this permit;
 - (2) Failure of the permittee to disclose fully all relevant facts or misrepresentation of any relevant facts in the application, or during the permit issuance process; or

- (3) A change in any condition that requires either a temporary or a permanent reduction or elimination of any discharge controlled by the permit, e.g., plant closure, termination of discharge by connection to a POTW, a change in state law that requires the reduction or elimination of the discharge, or information indicating that the permitted discharge poses a substantial threat to human health or welfare.
- b. Filing of either of the following items does not stay or suspend any permit condition: (1) a request by the permittee for a permit modification, revocation and reissuance, or termination, or (2) submittal of information specified in Part II.A.3 of the permit including planned changes or anticipated noncompliance.

The permittee shall submit any information that the permittee knows or has reason to believe would constitute cause for modification or revocation and reissuance of the permit at the earliest time such information becomes available, such as plans for physical alterations or additions to the permitted facility that:

- (1) could significantly change the nature of, or increase the quantity of pollutants discharged; or
- (2) the commissioner may request to evaluate whether such cause exists.
- c. In accordance with 327 IAC 5-1-3(a)(5), the permittee must also provide any information reasonably requested by the Commissioner.

6. Property Rights

Pursuant to 327 IAC 5-2-8(6) and 327 IAC 5-2-5(b), the issuance of this permit does not convey any property rights of any sort or any exclusive privileges, nor does it authorize any injury to persons or private property or invasion of other private rights, any infringement of federal, state, or local laws or regulations. The issuance of the permit also does not preempt any duty to obtain any other state, or local assent required by law for the discharge or for the construction or operation of the facility from which a discharge is made.

7. Severability

In accordance with 327 IAC 1-1-3, the provisions of this permit are severable and, if any provision of this permit or the application of any provision of this permit to any person or circumstance is held invalid, the invalidity shall not affect any other provisions or applications of the permit which can be given effect without the invalid provision or application.

8. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under Section 311 of the Clean Water Act.

9. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Clean Water Act or state law.

10. Penalties for Violation of Permit Conditions

Pursuant to IC 13-30-4, a person who violates any provision of this permit, the water pollution control laws; environmental management laws; or a rule or standard adopted by the Environmental Rules Board is liable for a civil penalty not to exceed twenty-five thousand dollars (\$25,000) per day of any violation.

Pursuant to IC 13-30-5, a person who obstructs, delays, resists, prevents, or interferes with (1) the department; or (2) the department's personnel or designated agent in the performance of an inspection or investigation performed under IC 13-14-2-2 commits a class C infraction.

Pursuant to IC 13-30-10-1.5(e), a person who willfully or negligently violates any NPDES permit condition or filing requirement, or any applicable standards or limitations of IC 13-18-3-2.4, IC 13-18-4-5, IC 13-18-12, IC 13-18-14, IC 13-18-15, or IC 13-18-16, commits a Class A misdemeanor.

Pursuant to IC 13-30-10-1.5(i), an offense under IC 13-30-10-1.5(e) is a Level 4 felony if the person knowingly commits the offense and knows that the commission of the offense places another person in imminent danger of death or serious bodily injury. The offense becomes a Level 3 felony if it results in serious bodily injury to any person, and a Level 2 felony if it results in death to any person.

Pursuant to IC 13-30-10-1.5(g), a person who willfully or recklessly violates any applicable standards or limitations of IC 13-18-8 commits a Class B misdemeanor.

Pursuant to IC 13-30-10-1.5(h), a person who willfully or recklessly violates any applicable standards or limitations of IC 13-18-9, IC 13-18-10, or IC 13-18-10.5 commits a Class C misdemeanor.

Pursuant to IC 13-30-10-1, a person who knowingly or intentionally makes any false material statement, representation, or certification in any NPDES form, notice, or report commits a Class B misdemeanor.

11. Penalties for Tampering or Falsification

In accordance with 327 IAC 5-2-8(10), the permittee shall comply with monitoring, recording, and reporting requirements of this permit. The Clean Water Act, as well as IC 13-30-10-1, provides that any person who knowingly or intentionally (a) destroys, alters, conceals, or falsely certifies a record, (b) tampers with, falsifies, or renders inaccurate or inoperative a recording or monitoring device or method, including the data gathered from the device or method, or (c) makes a false material statement or representation in any label, manifest, record, report, or other document; all required to be maintained under the terms of a permit issued by the department commits a Class B misdemeanor.

12. Toxic Pollutants

If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Clean Water Act for a toxic pollutant injurious to human health, and that standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition in accordance with 327 IAC 5-2-8(5). Effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants injurious to human health are effective and must be complied with, if applicable to the permittee, within the time provided in the implementing regulations, even absent permit modification.

13. Wastewater treatment plant and certified operators

The permittee shall have the wastewater treatment facilities under the responsible charge of an operator certified by the Commissioner in a classification corresponding to the classification of the wastewater treatment plant as required by IC 13-18-11-11 and 327 IAC 5-22. In order to operate a wastewater treatment plant the operator shall have qualifications as established in 327 IAC 5-22-7.

327 IAC 5-22-10.5(a) provides that a certified operator may be designated as being in responsible charge of more than one (1) wastewater treatment plant, if it can be shown that he will give adequate supervision to all units involved. Adequate supervision means that sufficient time is spent at the plant on a regular basis to assure that the certified operator is knowledgeable of the actual operations and that test reports and results are representative of the actual operations conditions. In accordance with 327 IAC 5-22-3(11), "responsible charge operator" means the person responsible for the overall daily operation, supervision, or management of a wastewater facility.

Pursuant to 327 IAC 5-22-10(4), the permittee shall notify IDEM when there is a change of the person serving as the certified operator in responsible charge of the wastewater treatment facility. The notification shall be made no later than thirty (30) days after a change in the operator.

14. Construction Permit

In accordance with IC 13-14-8-11.6, a discharger is not required to obtain a state permit for the modification or construction of a water pollution treatment or control facility if the discharger has an effective NPDES permit.

If the discharger modifies their existing water pollution treatment or control facility or constructs a new water pollution treatment or control facility for the treatment or control of any new influent pollutant or increased levels of any existing pollutant, then, within thirty (30) days after commencement of operation, the discharger shall file with the Department of Environment Management a notice of installation for the additional pollutant control equipment and a design summary of any modifications.

The notice and design summary shall be sent to the Office of Water Quality, Industrial NPDES Permits Section, 100 North Senate Avenue, Indianapolis, IN 46204-2251.

15. Inspection and Entry

In accordance with 327 IAC 5-2-8(8), the permittee shall allow the Commissioner, or an authorized representative, (including an authorized contractor acting as a representative of the Commissioner) upon the presentation of credentials and other documents as may be required by law, to:

- a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept pursuant to the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment or methods (including monitoring and control equipment), practices, or operations regulated or required pursuant to this permit; and
- d. Sample or monitor at reasonable times, any discharge of pollutants or internal wastestreams for the purposes of evaluating compliance with the permit or as otherwise authorized.

16. New or Increased Discharge of Pollutants

This permit prohibits the permittee from undertaking any action that would result in a new or increased discharge of a bioaccumulative chemical of concern (BCC) or a new or increased permit limit for a regulated pollutant that is not a BCC unless one of the following is completed prior to the commencement of the action:

- a. Information is submitted to the Commissioner demonstrating that the proposed new or increased discharges will not cause a significant lowering of water quality as defined under 327 IAC 2-1.3-2(50). Upon review of this information, the Commissioner may request additional information or may determine that the proposed increase is a significant lowering of water quality and require the submittal of an antidegradation demonstration.
- b. An antidegradation demonstration is submitted to and approved by the Commissioner in accordance with 327 IAC 2-1.3-5 and 327 IAC 2-1.3-6.

B. MANAGEMENT REQUIREMENTS

1. Proper Operation and Maintenance

The permittee shall at all times maintain in good working order and efficiently operate all facilities and systems (and related appurtenances) for the collection and treatment which are installed or used by the permittee and which are necessary for achieving compliance with the terms and conditions of this permit in accordance with 327 IAC 5-2-8(9).

Neither 327 IAC 5-2-8(9), nor this provision, shall be construed to require the operation of installed treatment facilities that are unnecessary for achieving compliance with the terms and conditions of the permit.

2. Bypass of Treatment Facilities

Pursuant to 327 IAC 5-2-8(12), the following are requirements for bypass:

- a. The following definitions:
 - (1) "Bypass" means the intentional diversion of a waste stream from any portion of a treatment facility.
 - (2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

- b. The permittee may allow a bypass to occur that does not cause a violation of the effluent limitations contained in this permit, but only if it is also for essential maintenance to assure efficient operation. These bypasses are not subject to Part II.B.2.c. and d.
- c. The permittee must provide the Commissioner with the following notice:
 - (1) If the permittee knows or should have known in advance of the need for a bypass (anticipated bypass), it shall submit prior written notice. If possible, such notice shall be provided at least ten (10) days before the date of the bypass for approval by the Commissioner.
 - (2) As required by 327 IAC 5-2-8(11)(C), the permittee shall orally report an unanticipated bypass that exceeds any effluent limitations in the permit within twenty-four (24) hours from the time the permittee becomes aware of such noncompliance. A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; and if the cause of noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate and prevent recurrence of the noncompliance. If a complete report is submitted by e-mail within 24 hours of the noncompliance, then that e-mail report will satisfy both the oral and written reporting requirement. E-mails should be sent to wwreports@idem.in.gov.
- d. The following provisions are applicable to bypasses:
 - (1) Except as provided by Part II.B.2.b., bypass is prohibited, and the Commissioner may take enforcement action against a permittee for bypass, unless the following occur:
 - (A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage.
 - (B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment down time. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance.

- (C) The permittee submitted notices as required under Part II.B.2.c.
- (2) The Commissioner may approve an anticipated bypass, after considering its adverse effects, if the Commissioner determines that it will meet the conditions listed above in Part II.B.2.d.(1). The Commissioner may impose any conditions determined to be necessary to minimize any adverse effects.
- e. Bypasses that result in death or acute injury or illness to animals or humans must be reported in accordance with the “Spill Response and Reporting Requirements” in 327 IAC 2-6.1, including calling 888/233-7745 as soon as possible, but within two (2) hours of discovery. However, under 327 IAC 2-6.1-3(1), when the constituents of the bypass are regulated by this permit, and death or acute injury or illness to animals or humans does not occur, the reporting requirements of 327 IAC 2-6.1 do not apply.

3. Upset Conditions

Pursuant to 327 IAC 5-2-8(13):

- a. “Upset” means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- b. An upset shall constitute an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Paragraph c of this section, are met.
- c. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, that:
 - (1) An upset occurred and the permittee has identified the specific cause(s) of the upset;
 - (2) The permitted facility was at the time being properly operated;
 - (3) The permittee complied with any remedial measures required under Part II.A.2; and

- (4) The permittee submitted notice of the upset as required in the "Twenty-Four Hour Reporting Requirements," Part II.C.3, or 327 IAC 2-6.1, whichever is applicable. However, under 327 IAC 2-6.1-3(1), when the constituents of the discharge are regulated by this permit, and death or acute injury or illness to animals or humans does not occur, the reporting requirements of 327 IAC 2-6.1 do not apply.

- d. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof pursuant to 40 CFR 122.41(n)(4).

4. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed from or resulting from treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the State and to be in compliance with all Indiana statutes and regulations relative to liquid and/or solid waste disposal. The discharge of pollutants in treated wastewater is allowed in compliance with the applicable effluent limitations in Part I. of this permit.

C. REPORTING REQUIREMENTS

1. Planned Changes in Facility or Discharge

Pursuant to 327 IAC 5-2-8(11)(F), the permittee shall give notice to the Commissioner as soon as possible of any planned physical alterations or additions to the permitted facility. In this context, permitted facility refers to a point source discharge, not a wastewater treatment facility. Notice is required only when either of the following applies:

- a. The alteration or addition may meet one of the criteria for determining whether the facility is a new source as defined in 327 IAC 5-1.5.
- b. The alteration or addition could significantly change the nature of, or increase the quantity of, pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in Part I.A. nor to notification requirements in Part II.C.9. of this permit.

Following such notice, the permit may be modified to revise existing pollutant limitations and/or to specify and limit any pollutants not previously limited.

2. Monitoring Reports

Pursuant to 327 IAC 5-2-8(10) and 327 IAC 5-2-13 through 15, monitoring results shall be reported at the intervals and in the form specified in "Monthly Reporting", Part I.C.2.

3. Twenty-Four Hour Reporting Requirements

Pursuant to 327 IAC 5-2-8(11)(C), the permittee shall orally report to the Commissioner information on the following types of noncompliance within 24 hours from the time permittee becomes aware of such noncompliance. If the noncompliance meets the requirements of item b (Part II.C.3.b) or 327 IAC 2-6.1, then the report shall be made within those prescribed time frames. However, under 327 IAC 2-6.1-3(1), when the constituents of the discharge that is in noncompliance are regulated by this permit, and death or acute injury or illness to animals or humans does not occur, the reporting requirements of 327 IAC 2-6.1 do not apply.

- a. Any unanticipated bypass which exceeds any effluent limitation in the permit;
- b. Any noncompliance which may pose a significant danger to human health or the environment. Reports under this item shall be made as soon as the permittee becomes aware of the noncomplying circumstances; or
- c. Any upset (as defined in Part II.B.3 above) that causes an exceedance of any effluent limitation in the permit.

The permittee can make the oral reports by calling (317)232-8670 during regular business hours and asking for the Compliance Data Section or by calling (317) 233-7745 ((888)233-7745 toll free in Indiana) during non-business hours. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and, if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce and eliminate the noncompliance and prevent its recurrence. The Commissioner may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

Alternatively, the permittee may submit a "Bypass/Overflow Report" (State Form 48373) or a "Noncompliance 24-Hour Notification Report" (State Form 52415), whichever is appropriate, to IDEM at (317) 232-8637 or wwreports@idem.in.gov. If a complete e-mail submittal is sent within 24 hours of the time that the permittee became aware of the occurrence, then the email report will satisfy both the oral and written reporting requirements.

4. Other Compliance/Noncompliance Reporting

Pursuant to 327 IAC 5-2-8(11)(D), the permittee shall report any instance of noncompliance not reported under the "Twenty-Four Hour Reporting Requirements" in Part II.C.3, or any compliance schedules at the time the pertinent Discharge Monitoring Report is submitted. The report shall contain the information specified in Part II.C.3;

The permittee shall also give advance notice to the Commissioner of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements; and

All reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

5. Other Information

Pursuant to 327 IAC 5-2-8(11)(E), where the permittee becomes aware of a failure to submit any relevant facts or submitted incorrect information in a permit application or in any report, the permittee shall promptly submit such facts or corrected information to the Commissioner.

6. Signatory Requirements

Pursuant to 327 IAC 5-2-22 and 327 IAC 5-2-8(15):

a. All reports required by the permit and other information requested by the Commissioner shall be signed and certified by a person described below or by a duly authorized representative of that person:

(1) For a corporation: by a responsible corporate officer. A "responsible corporate officer" means either of the following:

(A) A president, secretary, treasurer, any vice president of the corporation in charge of a principal business function, or any other person who performs similar policymaking or decision-making functions for the corporation; or

- (B) The manager of one (1) or more manufacturing, production, or operating facilities provided the manager is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty to make major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
 - (2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
 - (3) For a Federal, State, or local governmental body or any agency or political subdivision thereof: by either a principal executive officer or ranking elected official.
- b. A person is a duly authorized representative only if:
 - (1) The authorization is made in writing by a person described above.
 - (2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and
 - (3) The authorization is submitted to the Commissioner.
- c. Electronic Signatures. If documents described in this section are submitted electronically by or on behalf of the NPDES-regulated facility, any person providing the electronic signature for such documents shall meet all relevant requirements of this section, and shall ensure that all of the relevant requirements of 40 CFR part 3 (including, in all cases, subpart D to part 3) (Cross-Media Electronic Reporting) and 40 CFR part 127 (NPDES Electronic Reporting Requirements) are met for that submission.

- d. Certification. Any person signing a document identified under Part II.C.6., shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

7. Availability of Reports

Except for data determined to be confidential under 327 IAC 12.1, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Indiana Department of Environmental Management and the Regional Administrator. As required by the Clean Water Act, permit applications, permits, and effluent data shall not be considered confidential.

8. Penalties for Falsification of Reports

IC 13-30 and 327 IAC 5-2-8(15) provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance, shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 180 days per violation, or by both.

9. Changes in Discharge of Toxic Substances

Pursuant to 327 IAC 5-2-9, the permittee shall notify the Commissioner as soon as it knows or has reason to know:

- a. That any activity has occurred or will occur which would result in the discharge of any toxic pollutant that is not limited in the permit if that discharge will exceed the highest of the following notification levels.
- (1) One hundred micrograms per liter (100 µg/l);
 - (2) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

- (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
- (4) A notification level established by the Commissioner on a case-by-case basis, either at the Commissioner's own initiative or upon a petition by the permittee. This notification level may exceed the level specified in subdivisions (1), (2), or (3) but may not exceed the level which can be achieved by the technology-based treatment requirements applicable to the permittee under the CWA (see 327 IAC 5-5-2).

b. That it has begun or expects to begin to use or manufacture, as an intermediate or final product or byproduct, any toxic pollutant that was not reported in the permit application under 40 CFR 122.21(g)(9). However, this subsection b. does not apply to the permittee's use or manufacture of a toxic pollutant solely under research or laboratory conditions.

10. Future Electronic Reporting Requirements

IDEM is currently developing the technology and infrastructure necessary to allow compliance with the EPA Phase 2 e-reporting requirements per 40 CFR 127.16 and to allow electronic reporting of applications, notices, plans, reports, and other information not covered by the federal e-reporting regulations. IDEM will notify the permittee when IDEM's e-reporting system is ready for use for one or more applications, notices, plans, reports, or other information. This IDEM notice will identify the specific applications, notices, plans, reports, or other information that are to be submitted electronically and the permittee will be required to use the IDEM electronic reporting system to submit the identified application(s), notice(s), plan(s), report(s), or other information. See Part I.C.2. of this permit for the current electronic reporting requirements for the submittal of monthly monitoring reports such as the Discharge Monitoring Report (DMR) and the Monthly Monitoring Report (MMR).

Part III Cooling Water Intake Structures

A. Best Technology Available (BTA) Determination

Section 316(b) of the Clean Water Act requires that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available (BTA) for minimizing adverse environmental impact.

EPA promulgated a CWA section 316(b) regulation on August 15, 2014, which became effective on October 14, 2014. 79 Fed. Reg. 48300-439 (August 15, 2014). This regulation established application requirements and standards for cooling water intake structures. The regulation is applicable to point sources with a cumulative design intake flow (DIF) greater than 2 MGD where 25% or more of the water withdrawn (using the actual intake flow (AIF)) is used exclusively for cooling purposes. All existing facilities subject to these regulations must submit the information required by 40 CFR 122.21(r)(2)–(r)(8) and facilities with an actual intake flow of greater than 125 MGD must also submit the information required by 40 CFR 122.21(r)(9)–(r)(13). The regulation establishes best technology available standards to reduce impingement and entrainment of aquatic organisms at existing power generation and manufacturing facilities.

Based on available information, IDEM has made a best technology available (BTA) impingement and entrainment determination.

IDEM concurs with the permittee's selection of BTA impingement alternative 40 CFR 125.94(c)(6); operate a system of technologies, management practices, and operational measures, that, after review of the information required in the *impingement technology performance optimization study* at 40 CFR 122.21(r)(6)(ii), IDEM determines is the best technology available for impingement reduction at the permittee's cooling water intake structures.

After considering all the factors that must and may be considered by the federal rules (see discussion above), IDEM finds that the existing facility meets the BTA for entrainment mortality. This is primarily based on the following factors:

1. Relatively minor volume of intake flow relative to the flow in the West Fork of the White River;
2. The number and species of organisms projected to be entrained by the facility;
3. The proportion of intake flow that passes through the plant via the #4 circulator pump without going through the condensers; and
4. The requirement that the permittee conduct an entrainment study to validate IDEM's conclusions regarding entrainment.

This determination will be reassessed at the next permit reissuance to ensure that the CWIS continues to meet the requirements of Section 316(b) of the federal Clean Water Act (33 U.S.C. section 1326).

B. Permit Requirements

The permittee must comply with the following cooling water intake structure requirements:

1. In accordance with 40 CFR 125.98(b)(1), nothing in this permit authorizes take for the purposes of a facility's compliance with the Endangered Species Act.
2. The permittee must at all times properly operate and maintain the cooling water intake structure and associated intake equipment.
3. The permittee must inform IDEM of any proposed changes to the CWIS or proposed changes to operations at the facility that affect the information taken into account in the current BTA evaluation.
4. Any discharge of intake screen backwash must meet the Minimum Narrative Limitations contained in Part I.B of the permit. There must be no discharge of debris from intake screen washing which will settle to form objectionable deposits which are in amounts sufficient to be unsightly or deleterious, or which will produce colors or odors constituting a nuisance.
5. At a minimum frequency of daily, the permittee must monitor the intake flow. These daily measurements must be reported at Outfall 001 on the MMR with the monthly results summarized on the DMRs that are submitted every month.
6. As soon as practicable but no later than twelve months after the effective date of the permit, the permittee shall submit to IDEM for review and approval a study plan including a schedule for obtaining information required by the impingement technology optimization study required by 40 CFR 125.94(c)(6) and 40 CFR 122.21(r)(6)(ii), except that only one year of biological monitoring is required at this time. After approval by IDEM, the permittee shall conduct the approved impingement technology optimization study. The study plan must be able to demonstrate that the technology is or will be optimized to minimize impingement mortality of all non-fragile species. The permittee shall submit the final technology optimization study report, within 90 days of completing the year of sampling. The permit may be modified to include verifiable and enforceable permit conditions that ensure the technology will perform as demonstrated or to include additional studies or other requirements if the results of the study warrant these steps.

7. As soon as practicable but no later than twelve months after the effective date of the permit, the permittee shall submit to IDEM for review and approval a study plan including a schedule for the conduct of one year of entrainment sampling, beginning on or before April 1 and lasting at a minimum through September 30 of the sampling year. The entrainment study plan shall conform to the entrainment characterization study requirements specified in 40 CFR 122.21(r)(9). After approval by IDEM, the permittee shall conduct the approved entrainment sampling study. The entrainment sampling shall be completed, and results submitted to IDEM within 36 months of the effective date of the permit.
8. The permittee must either conduct visual inspections or employ remote monitoring devices during the period the cooling water intake structure is in operation as required by 40 CFR 125.96(e). The permittee must conduct such inspections at least weekly to ensure that any technologies operated to comply with 40 CFR 125.94 are maintained and operated to function as designed including those installed to protect Federally listed threatened or endangered species or designated critical habitat. Alternative procedures can be approved if this requirement is not feasible (e.g., an offshore intake, velocity cap, or during periods of inclement weather).
9. In accordance with 40 CFR 125.97(c), by January 31 of each year, the permittee must submit to the Industrial NPDES Permit Section IDEM-OWQ an annual certification statement for the preceding calendar year signed by the responsible corporate officer as defined in 40 CFR 122.22 (see 327 IAC 5-2-22) subject to the following:
 - a. If the information contained in the previous year's annual certification is still pertinent, you may simply state as such in a letter to IDEM and the letter, along with any applicable data submission requirements specified in this section shall constitute the annual certification.
 - b. If you have substantially modified operation of any unit at your facility that impacts cooling water withdrawals or operation of your cooling water intake structures, you must provide a summary of those changes in the report. In addition, you must submit revisions to the information required at 40 CFR 122.21(r) in your next permit application.

10. Best technology available (BTA) determinations for entrainment mortality and impingement mortality at cooling water intake structures will be made in each permit reissuance in accordance with 40 CFR 125.90-98. The permittee must submit all the information required by the applicable provisions of 40 CFR 122.21(r)(2) through (r)(8) with the next renewal application. Since the permittee has submitted the studies required by 40 CFR 122.21(r), the permittee may, in subsequent renewal applications pursuant to 40 CFR 125.95(c), request to reduce the information required if conditions at the facility and in the waterbody remain substantially unchanged since the previous application so long as the relevant previously submitted information remains representative of the current source water, intake structure, cooling water system, and operating conditions. Any habitat designated as critical or species listed as threatened or endangered after issuance of the current permit whose range of habitat or designated critical habitat includes waters where a facility intake is located constitutes potential for a substantial change that must be addressed by the owner/operator in subsequent permit applications, unless the facility received an exemption pursuant to 16 U.S.C. 1536(o) or a permit pursuant to 16 U.S.C. 1539(a) or there is no reasonable expectation of take. The permittee must submit the request for reduced cooling water intake structure and waterbody application information at least **two years and six months** prior to the expiration of the NPDES permit. The request must identify each element in this subsection that it determines has not substantially changed since the previous permit application and the basis for the determination. IDEM has the discretion to accept or reject any part of the request.
11. The permittee shall submit and maintain all the information required by the applicable provisions of 40 CFR 125.97.
12. All required reports must be submitted to the IDEM, Office of Water Quality, NPDES Permits Branch, Industrial NPDES Permit Section at OWQWWPER@idem.in.gov and the Compliance Branch at wwReports@idem.in.gov.



**National Pollutant Discharge Elimination System
Briefing Memo for
Citizens Energy Group
Citizens Thermal C.C. Perry K Steam Plant
Draft: October 2021**

Indiana Department of Environmental Management

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

Permittee:	Citizens Energy Group 2020 North Meridian Street Indianapolis, Indiana 46202
Existing Permit Information:	Permit Number: IN0004677 Expiration Date: December 31, 2021
Facility Contact:	Todd Fuller, Director – Thermal Operations (317) 236-6702 or tfuller@citizensenergygroup.com
Facility Location:	366 Kentucky Avenue Indianapolis, Indiana 46225 Marion County
Receiving Stream(s):	West Fork of the White River
GLI/Non-GLI:	Non-GLI
Proposed Permit Action:	Renew
Date Application Received:	June 30, 2021
Source Category	NPDES Minor – Industrial
Permit Writer:	Taylor Wissel, Senior Environmental Manager (317) 234-4260 or twissel@idem.in.gov

Table of Contents

1.0 Introduction.....	3
2.0 Facility Description	3
2.1 General.....	3
2.2 Outfall Locations.....	5
2.3 Wastewater Treatment	5
2.4 Changes in Operation.....	6
2.5 Facility Storm Water	6
3.0 Permit History	6
3.1 Compliance History	6
4.0 Location of Discharge/Receiving Water Use Designation	6
4.1 Total Maximum Daily Loads (TMDLs)	7
5.0 Permit Limitations	7
5.1 Technology-Based Effluent Limits (TBEL).....	7
5.2 Water Quality-Based Effluent Limits	8
5.3 Effluent Limitations and Monitoring Requirements by Outfall	8
5.4 Whole Effluent Toxicity (WET) Testing	10
5.5 Antibacksliding.....	10
5.6 Antidegradation	11
5.8 Water Treatment Additives	11
6.0 Permit Draft Discussion.....	12
6.1 Discharge Limitations, Monitoring Conditions and Rationale.....	12
6.2 Schedule of Compliance.....	13
6.3 Clean Water Act Section 316(b) Cooling Water Intake Structure(s) (CWIS).....	13
6.4 Spill Response and Reporting Requirement.....	34
6.5 Permit Processing/Public Comment	34

1.0 INTRODUCTION

The Indiana Department of Environmental Management (IDEM) received a National Pollutant Discharge Elimination System (NPDES) Permit application from Citizens Energy Group on June 30, 2021.

In accordance with 327 IAC 5-2-6(a), the current five-year permit was issued with an effective date of January 1, 2017. A five-year permit is proposed in accordance with 327 IAC 5-2-6(a).

The Federal Water Pollution Control Act (more commonly known as the Clean Water Act), as amended, (Title 33 of the United States Code (U.S.C.) Section 1251 *et seq.*), requires an NPDES permit for the discharge of pollutants into surface waters. Furthermore, Indiana law requires a permit to control or limit the discharge of any contaminants into state waters or into a publicly owned treatment works. This proposed permit action by IDEM complies with and implements these federal and state requirements.

In accordance with Title 40 of the Code of Federal Regulations (CFR) Section 124.7, as well as Title 327 of the Indiana Administrative Code (IAC) 327 Article 5-3-7, a Statement of Basis, or Briefing Memo, is required for certain NPDES permits. This document fulfills the requirements established in these regulations. This Briefing Memo was prepared in order to document the factors considered in the development of NPDES Permit effluent limitations. The technical basis for the Briefing Memo may consist of evaluations of promulgated effluent guidelines, existing effluent quality, receiving water conditions, Indiana water quality standards-based wasteload allocations, and other information available to IDEM. Decisions to award variances to Water Quality Standards or promulgated effluent guidelines are justified in the Briefing Memo where necessary.

2.0 FACILITY DESCRIPTION

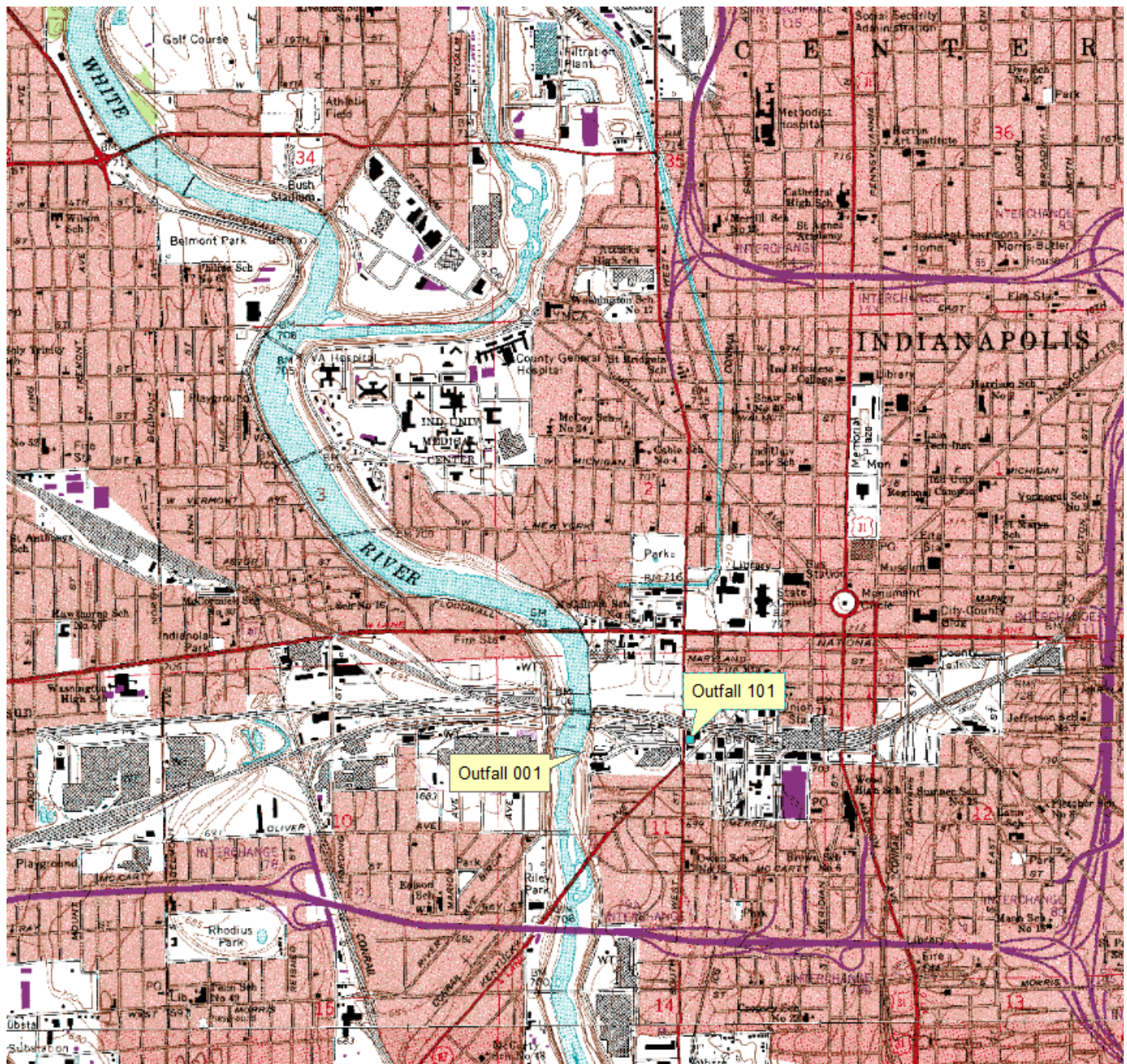
2.1 General

Citizens Thermal C.C. Perry K Steam Plant (Perry K) is classified under Standard Industrial Classification (SIC) Code 4961 – Steam and Air Conditioning Supply.

The facility utilizes natural gas and oil and primary fuel sources for the generation of steam and in-house electricity. The facility provides steam to the downtown Indianapolis urban steam heat loop. The facility discharges non-contact cooling water, steam condensate, and boiler blowdown to the West Fork of the White River. Boiler blowdown is monitored at an internal outfall prior to final discharge through Outfall 001. A map showing the location of the facility has been included as Figure 1.

The source water for the facility is the West Fork of the White River. Perry K seasonally chlorinates the inlet duct using sodium hypochlorite to discourage the growth of organic plant matter and invasive snails. Sodium bisulfite is injected into the non-contact cooling water prior to discharge to minimize residual chlorine. CO₂ is used to control pH.

Figure 1: Facility Location



366 Kentucky Avenue
Indianapolis, Indiana 46225
Marion County

2.2 Outfall Locations

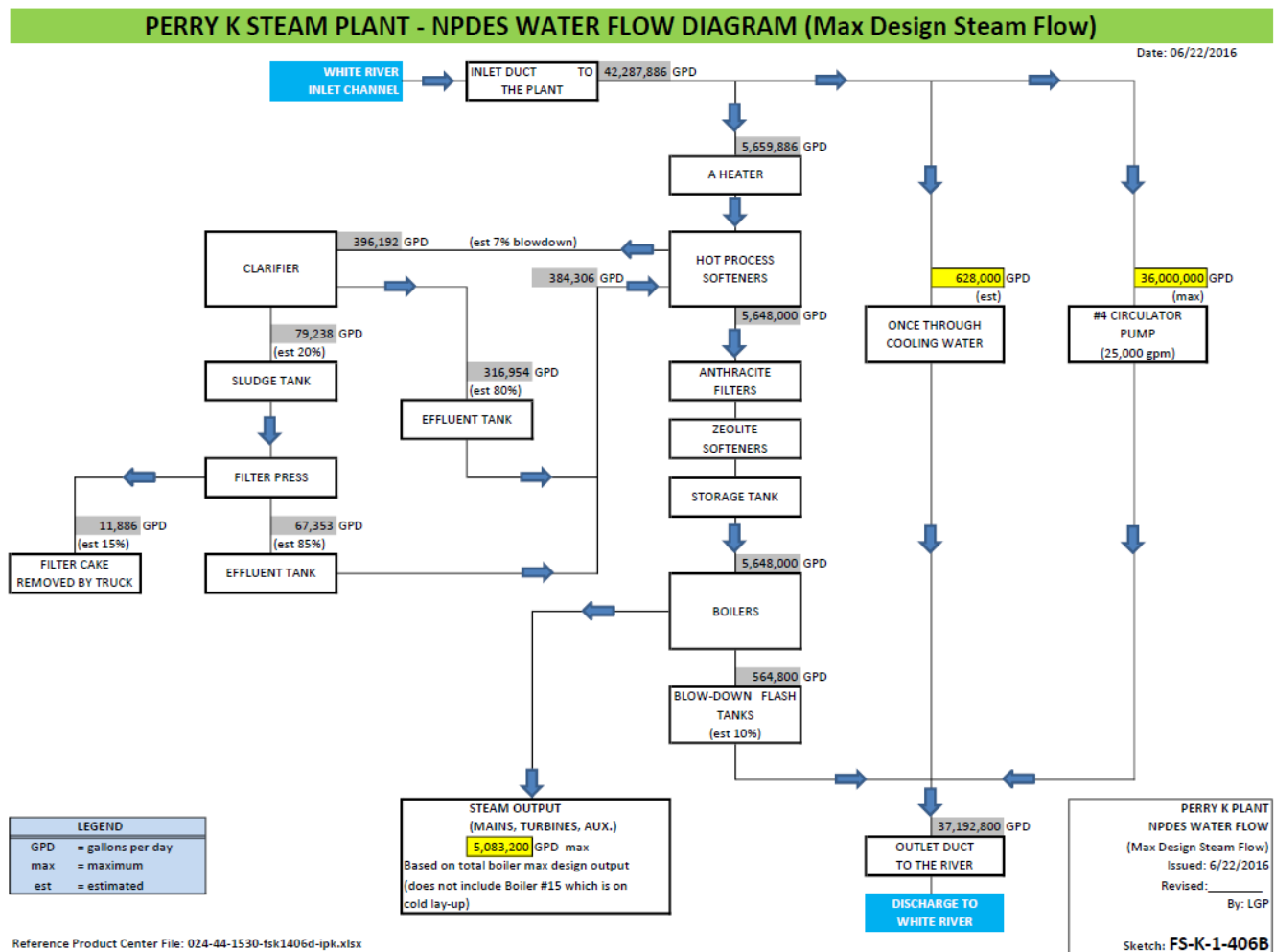
Outfall 001*	Latitude: 39° 45' 43.4" Longitude: -86° 10' 22.2"
Outfall 101*	Latitude: 39° 45' 45.1" Longitude: -86° 10' 0.8"

*These coordinates have been updated to better reflect the location of the discharges.

2.3 Wastewater Treatment

Wastewater discharged through Outfall 001 includes boiler blowdown, steam condensate, and non-contact cooling water. The facility utilizes CO₂ for pH adjustment prior to discharge. Chlorination of the intake water and dechlorination of the wastewater is performed as needed. The wastewater treatment system has an average discharge of approximately 14.9 MGD. A Water Balance Diagram has been included as Figure 2.

Figure 2: Water Balance Diagram



Outfall 001: The average daily discharge from Outfall 001 to the West Fork of the White River is 14.9 MGD. The design flow (highest monthly average) based on the most recent 2 years of data is 28 MGD.

The permittee shall have the wastewater treatment facilities under the responsible charge of an operator certified by the Commissioner in a classification corresponding to the classification of the wastewater treatment plant as required by IC 13-18-11-11 and 327 IAC 5-22-5. In order to operate a wastewater treatment plant, the operator shall have qualifications as established in 327 IAC 5-22-7. IDEM has given the permittee a **Class A-SO** industrial wastewater treatment plant classification based on the use of CO₂ for pH adjustment.

2.4 Changes in Operation

In the permit application, no changes in operation were identified as occurring since the previous permit renewal.

2.5 Facility Storm Water

Storm water runoff from the coal yard and parking lot discharges to the city sewer, which is treated at a municipal wastewater treatment plant. Additionally, there is storm water runoff from the screen house, which is mostly a grass/gravel area, therefore, storm water infiltrates or is sheet runoff to the river. Because the C.C. Perry K Steam Plant is in Marion County, and there are no direct discharges of storm water to a water of the state, the storm water runoff from this property will continue to be regulated by Indianapolis' individual storm water permit INS04001.

3.0 PERMIT HISTORY

3.1 Compliance History

The purpose of this section is to summarize any violations and enforcement actions associated with the permit.

A review of this facility's discharge monitoring data was conducted for compliance verification. This review indicates the following permit limitation violations at Outfall 001 between July 2018 and July 2021: one violation for pH in January 2019, and one violation for TRC in October 2019. There are no pending or current enforcement actions regarding this NPDES permit.

4.0 LOCATION OF DISCHARGE/RECEIVING WATER USE DESIGNATION

The receiving stream for Outfall 001 is the West Fork of the White River. The Q_{7,10} low flow value of the West Fork of the White River is 69 cfs and shall be capable of supporting a well-balanced, warm water aquatic community and full body contact recreation in accordance with 327 IAC 2-1-3. The permittee discharges to a waterbody that has been identified as a water of the state that is not within the Great Lakes system. Therefore, it is subject to NPDES requirements specific to dischargers not discharging to waters within the Great Lakes system under 327 IAC 2-1 and 327 IAC 5-2-11.1. These rules contain applicable water quality standards and the procedures to calculate and incorporate water quality-based effluent limitations.

4.1 Total Maximum Daily Loads (TMDLs)

Section 303(d) of the Clean Water Act requires states to identify waters, through their Section 305(b) water quality assessments, that do not or are not expected to meet applicable water quality standards with federal technology-based standards alone. States are also required to develop a priority ranking for these waters taking into account the severity of the pollution and the designated uses of the waters. Once this listing and ranking of impaired waters is completed, the states are required to develop Total Maximum Daily Loads (TMDLs) for these waters in order to achieve compliance with the water quality standards. Indiana's 2020 303(d) List of Impaired Waters was developed in accordance with Indiana's Water Quality Assessment and 303(d) Listing Methodology for Waterbody Impairments and Total Maximum Daily Load Development for the 2020 Cycle.

The West Fork of the White River, Assessment-Unit INW01C1_03, HUC 051202011201, is on the 2020 303(d) list for PCBs in fish tissue. A TMDL for the West Fork of the White River has been developed for *E. coli*. The White River TMDL Study was approved by U.S. EPA under Section 303(d) of the Clean Water Act on March 31, 2004, for seven impairments.

5.0 PERMIT LIMITATIONS

5.1 Technology-Based Effluent Limits (TBEL)

TBELs require every individual member of a discharge class or category to operate their water pollution control technologies according to industry-wide standards and accepted engineering practices. TBELs are developed by applying the National Effluent Limitation Guidelines (ELGs) established by EPA for specific industrial categories. Technology-based treatment requirements established pursuant to sections 301(b) and 306 of the CWA represent the minimum level of control that must be imposed in an NPDES permit (327 IAC 5-5-2(a)).

In the absence of ELGs, TBELs can also be established on a case-by-case basis using best professional judgment (BPJ) in accordance with 327 IAC 5-2-10 and 327 IAC 5-5 (which implement 40 CFR 122.44, 125.3, and Section 402(a)(1) of the Clean Water Act (CWA)).

BEST PROFESSIONAL JUDGEMENT (BPJ)

EPA develops effluent limitation guidelines (ELGs) for existing industrial and commercial activities as directed in the 1972 amendments of the Clean Water Act. The federal effluent limitation guidelines and standards are located at 40 CFR 403 through 471, inclusive, and are incorporated into Indiana law at 327 IAC 5-2-1.5. In Indiana, NPDES permits are required to ensure compliance with these federal effluent limitation guidelines and standards under 327 IAC 5-2-10(a)(1), 327 IAC 5-2-10(a)(2), and 327 IAC 5-5-2. ELGs are technology-based effluent limitations (TBELs). The intent of a TBEL is to require a minimum level of treatment for industrial point sources based on currently available treatment technologies. Where EPA has not yet developed guidelines for a particular industry, best professional judgment (BPJ) may be used to develop case-by-case technology-based permit limitations under 327 IAC 5-5-2 and 5-2-10 (see also 40 CFR 122.44 and 125.3, and Section 402(a)(1) of the Clean Water Act).

ELGs have not yet been developed specifically for this type of discharge. Therefore, as provided by law, IDEM may establish TBELs in the proposed permit utilizing BPJ to meet the requirements of Best Conventional Pollutant Control Technology and Best Available Technology Economically Achievable (BCT/BAT).

5.2 Water Quality-Based Effluent Limits

WQBELs are designed to be protective of the beneficial uses of the receiving water and are independent of the available treatment technology. The WQBELs for this facility are based on water quality criteria in 327 IAC 2-1-6 or developed under the procedures described in 327 IAC 2-1-8.2 through 8.7 and 327 IAC 2-1-8.9, and implementation procedures in 327 IAC 5. Limitations are required for any parameter which has the reasonable potential to exceed a water quality criterion as determined using the procedures under 327 IAC 5-2-11.1(h).

5.3 Effluent Limitations and Monitoring Requirements by Outfall

Under 327 IAC 5-2-10(a) (see also 40 CFR 122.44), NPDES permit requirements are technology-based effluent limitations and standards (including technology-based effluent limitations (TBELs) based on federal effluent limitations guidelines or developed on a case-by-case basis using best professional judgment (BPJ), where applicable), water quality standards-based, or based on other more stringent requirements. The decision to limit or monitor the parameters contained in this permit is based on information contained in the permittee's NPDES application and other available information relating to the facility and the receiving waterbody as well as the applicable federal effluent limitations guidelines. In addition, when renewing a permit, the existing permit limits, the antibacksliding requirements under 327 IAC 5-2-10(a)(11), and the antidegradation requirements under 327 IAC 2-1.3 must be considered.

5.3.1 All External Outfalls (001)

Narrative Water Quality Based Limits

The narrative water quality criteria contained under 327 IAC 2-1-6(a)(1) and (2) have been included in this permit to ensure that these minimum water quality conditions are met.

Flow

The effluent flow is to be monitored in accordance with 327 IAC 5-2-13(a)(2).

5.3.2 Outfall 001

Intake Flow

Monitoring requirements for intake flow are being retained from the current permit.

Temperature

The previous permit contained limitations not consistent with Indiana water quality standards and no 316(a) variance. The 'shoulder limits' in the current permit are considered a variance from the applicable thermal effluent limitations and have been removed as a part of this renewal. Effluent Limitations for temperature are based on the criteria established in 327 IAC 2-1-6(b)(4).

The previous permit also used an incorrect version of the mixed river temperature equation; therefore, an amended equation is included in this proposed permit.

Total Residual Chlorine (TRC)

Effluent limitations for continuous TRC of 0.04 mg/l daily maximum and 0.02 mg/l monthly average are being included in this proposed permit and are based on Indiana water quality standards. An intermittent TRC limitation of 0.2 mg/l daily maximum is also being included in the permit based on Indiana water quality standards.

The 0.2 mg/l daily maximum limit for intermittent TRC is only applicable if the discharge of chlorine is intermittent. As required by 327 IAC 2-1-6 Table 1, Footnote [a], to be considered an intermittent discharge, total residual chlorine shall not be detected in the discharge for a period of more than forty (40) minutes in duration, and such periods shall be separated by at least five (5) hours. Simultaneous multi-unit chlorination is permitted. The effluent limitations for continuous TRC are applicable at all times the discharge of chlorine does not meet this interim definition.

Chlorination Frequency

The monitoring of chlorination frequency applies only when the facility is chlorinating intermittently. The Permit requires the permittee to provide a monthly report on the "times per day" the permittee is intermittently chlorinating. The permittee is limited to no more than four (4) chlorination cycles per day.

Chlorination Duration

The monitoring for duration of chlorination dose applies only when the facility is chlorinating intermittently. The Permit requires the permittee to provide a monthly report on the number of minutes per chlorination cycle the permittee is chlorinating intermittently. The permittee is limited to no more than forty (40) minutes per chlorination cycle.

Mercury

Yearly effluent monitoring requirements for mercury are being retained in this permit to ensure the discharge of mercury does not reach levels that would violate Indiana water quality standards. Sampling must be completed using EPA Test Method 1631, Method E.

pH

Discharges to waters of the state are limited to the range of 6.0-9.0 s.u., in accordance with 327 IAC 2-1-6(b)(2).

5.3.3 Outfall 101

Total Suspended Solids (TSS)

TSS is a regulated conventional pollutant and is limited in the NPDES permit to ensure adequate wastewater treatment is provided and the narrative water quality criteria will be protected. TSS is a parameter used to protect the existing and designated uses by preventing the discharge from having putrescent, or otherwise objectionable deposits, unsightly or deleterious deposits, color, or other conditions in such a degree as to create a nuisance. TSS technology-based effluent limits are always designed to protect and maintain the existing uses. 327 IAC 5-5-2 states that technology-based treatment requirements represent the minimum level of control that must be imposed in a NPDES permit. The effluent limitation for TSS were established based on Best Professional Judgement (BPJ) and utilizing 40 CFR 423.12(b)(3) as a guideline. Oil and Grease limitations of 100 mg/l daily maximum and 30 mg/l monthly average have been retained from the previous permit.

Oil and Grease (O&G)

327 IAC 5-5-2 states that technology-based treatment requirements represent the minimum level of control that must be imposed in a NPDES permit. The effluent limitation for Oil & Grease were established based on Best Professional Judgement (BPJ) and utilizing 40 CFR 423.12(b)(3) as a guideline. Oil and Grease limitations of 20 mg/l daily maximum and 15 mg/l monthly average have been retained from the previous permit.

5.4 Whole Effluent Toxicity (WET) Testing

The permit does not contain a requirement to conduct whole effluent toxicity (WET) tests.

5.5 Antibacksliding

Pursuant to 327 IAC 5-2-10(a)(11), unless an exception applies, a permit may not be renewed, reissued, or modified to contain effluent limitations that are less stringent than the comparable effluent limitations in the previous permit. None of the limits included in this permit are less stringent than the comparable effluent limitations in the previous permit, therefore, backsliding is not an issue in accordance with 327 IAC 5-2-10(a)(11).

5.6 Antidegradation

Indiana's Antidegradation Standards and Implementation procedures are outlined in 327 IAC 2-1.3. The antidegradation standards established by 327 IAC 2-1.3-3 apply to all surface waters of the state. The permittee is prohibited from undertaking any deliberate action that would result in a new or increased discharge of a bioaccumulative chemical of concern (BCC) or a new or increased permit limit for a regulated pollutant that is not a BCC unless information is submitted to the commissioner demonstrating that the proposed new or increased discharge will not cause a significant lowering of water quality, or an antidegradation demonstration submitted and approved in accordance 327 IAC 2-1.3-5 and 2-1.3-6.

The NPDES permit does not propose to establish a new or increased loading of a regulated pollutant; therefore, the Antidegradation Implementation Procedures in 327 IAC 2-1.3-5 and 2-1.3-6 do not apply to the permitted discharge.

5.8 Water Treatment Additives

In the event that changes are to be made in the use of water treatment additives that could significantly change the nature of or increase the discharge concentration of any of the additives contributing to an outfall governed under the permit, the permittee must apply for and obtain approval from IDEM prior to such discharge. Discharges of any such additives must meet Indiana water quality standards. The permittee must apply for permission to use water treatment additives by completing and submitting State Form 50000 (Application for Approval to Use Water Treatment Additives) available at: <https://www.in.gov/idem/forms/idem-agency-forms/> and submitting any needed supplemental information. In the review and approval process, IDEM determines, based on the information submitted with the application, whether the use of any new or changed water treatment additives/chemicals or dosage rates could potentially cause the discharge from any permitted outfall to cause chronic or acute toxicity in the receiving water.

The authority for this requirement can be found under one or more of the following: 327 IAC 5-2-8(11)(B), which generally requires advance notice of any planned changes in the permitted facility, any activity, or other circumstances that the permittee has reason to believe may result in noncompliance with permit requirements; 327 IAC 5-2-8(11)(F)(ii), which generally requires notice as soon as possible of any planned physical alterations or additions to the permitted facility if the alteration or addition could significantly change the nature of, or increase the quantity of, pollutants discharged; and 327 IAC 5-2-9(2) which generally requires notice as soon as the discharger knows or has reason to know that the discharger has begun or expects to begin to use or manufacture, as an intermediate or final product or byproduct, any toxic pollutant that was not reported in the permit application. The following is a list of water treatment additives currently approved for use at the facility:

<u>Supplier</u>	<u>WTA</u>	<u>Outfall</u>	<u>Purpose</u>	<u>Approval Date</u>
ChemTreat, Inc.	BL122	001	Boiler water treatment	2006 Permit
ChemTreat, Inc.	BL197	001	Defoamer	2006 Permit
ChemTreat, Inc.	BL4356	001	Scale inhibitor	2006 Permit
ChemTreat, Inc.	P817GRK	001	Clarifying agent	1/25/2019

6.0 PERMIT DRAFT DISCUSSION

6.1 Discharge Limitations, Monitoring Conditions and Rationale

The proposed final effluent limitations are based on the more stringent of the Indiana water quality-based effluent limitations (WQBELs), technology-based effluent limitations (TBELs), or approved total maximum daily loads (TMDLs) and NPDES regulations as appropriate for each regulated outfall. Section 5.3 of this document explains the rationale for the effluent limitations at each Outfall.

Analytical and sampling methods used shall conform to the version of 40 CFR 136 as referenced in 327 IAC 5-2-13(d)(1) and 327 IAC 5-2-1.5. Nothing has changed to warrant modifying the monitoring conditions.

Outfall 001:

Parameter	Monthly Average	Daily Maximum	Units	Minimum Frequency	Sample Type
Flow					
Intake	Report	Report	MGD	Daily	24-Hr. Total
Effluent	Report	Report	MGD	Daily	24-Hr. Total
Temperature					
Intake	Report	Report	°F	Daily	Continuous
Effluent	Report	Report	°F	Daily	Continuous
Mixed River	Report	Report	°F	Daily	Report
TRC					
Continuous	0.02	0.04	mg/l	Daily	Grab
Intermittent	-----	0.2	mg/l	Daily	Grab
Chlorination					
Frequency	-----	4	times/day	Daily	Report
Duration	-----	40	min/dose	Daily	Report
Mercury	Report	Report	ng/l	1 X Yearly	Grab

Parameter	Daily Minimum	Daily Maximum	Units	Minimum Frequency	Sample Type
pH	6.0	9.0	Std Units	1 X Weekly	Grab

Outfall 101:

Parameter	Monthly Average	Daily Maximum	Units	Minimum Frequency	Sample Type
Flow	Report	Report	MGD	Daily	24-Hr. Total
TSS	30	100	mg/l	1 X Weekly	24-Hr. Composite
Oil & Grease	15	20	mg/l	6 X Annually	Grab

6.2 Schedule of Compliance

The circumstances in this NPDES permit do not qualify for a schedule of compliance.

6.3 Clean Water Act Section 316(b) Cooling Water Intake Structure(s) (CWIS)

6.3.1 Introduction

Section 316(b) of the Clean Water Act requires that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available (BTA) for minimizing adverse environmental impact.

EPA promulgated a CWA section 316(b) regulation on August 15, 2014, which became effective on October 14, 2014. 79 Fed. Reg. 48300-439 (August 15, 2014). This regulation established application requirements and standards for cooling water intake structures. The regulation is applicable to point sources with a cumulative design intake flow (DIF) greater than 2 MGD where 25% or more of the water withdrawn (using the actual intake flow (AIF)) is used exclusively for cooling purposes. All existing facilities subject to these regulations must submit the information required by 40 CFR 122.21(r)(2)–(r)(8) and facilities with an actual intake flow of greater than 125 MGD must also submit the information required by 40 CFR 122.21(r)(9)–(r)(13). The regulation establishes best technology available standards to reduce impingement and entrainment of aquatic organisms at existing power generation and manufacturing facilities.

Impingement is the process by which fish and other aquatic organisms are trapped and often killed or injured when they are pulled against the cooling water intake structures (CWIS's) outer structure or screens as water is withdrawn from a waterbody. Entrainment is the process by which fish larvae and eggs and other aquatic organisms in the intake flow enter and pass through a CWIS and into a cooling water system, including a condenser or heat exchanger, which often results in the injury or the death of the organisms (see definitions at 40 CFR 125.92(h) and (n)).

Citizens Energy Group operates the Citizens Thermal C.C. Perry K Steam Plant (Perry K) in Indianapolis. The facility operates a single intake structure located on the West Fork of the White River approximately 625 feet downstream from the Washington Street Bridge and approximately 60 feet upstream of a low-head dam (Chevy Dam) that was originally constructed in 1918 to create a pool to withdraw water from during low-flow conditions. The dam was refurbished in 1938 and the crest elevation was raised to 674.2 feet above mean sea level (amsl). The dam is owned and maintained by Citizens Energy Group. The Perry K intake provides water for Perry K for multiple uses including steam generation and non-contact cooling.

The design intake flow (DIF) is the maximum flow that a facility is capable of withdrawing and for this facility is believed to be between 42.288 and 56.88 MGD based on the information submitted by the permittee.

The actual intake flow (AIF), as defined under 40 CFR 125.92(a), is the average volume of water withdrawn on an annual basis by the cooling water intake structures over the past five years. The actual intake flow for the facility from July 2016 through June 2021 is calculated as 15.26 MGD as shown in the table below:

Actual Intake Flow	
Year	Annual Average Flow (MGD)
July 2016-June 2017	12.10
July 2017-June 2018	15.15
July 2018-June 2019	15.09
July 2019-June 2020	18.25
July 2020-June 2021	15.69
Average:	15.26

Approximately 94% of intake water is used for cooling purposes.

Therefore, since the facility has a DIF greater than 2 MGD, and because the percentage of flow used at the facility exclusively for cooling is greater than 25%, the facility is required to meet the BTA standards for impingement and entrainment mortality, including any measures to protect Federally listed threatened and endangered species and designated critical habitat established under 40 CFR 125.94(g).

As an existing facility with a DIF greater than 2 MGD and because the AIF is less than or equal to 125 MGD, the permittee was required to submit the application information required by 40 CFR 122.21(r)(2) through (r)(8).

In 2016, the permittee submitted a document titled “C. C. Perry K Steam Plant Report on the Assessment of Best Technology Available for Minimizing Adverse Environmental Impact under § 316(b) of the Clean Water Act,” dated June 29, 2016.

On June 27, 2019, IDEM received a letter from the permittee requesting a reduction in the submittals of information required under 40 CFR 122.21(r) pursuant to 40 CFR 125.95(c). The permittee requested that requirements to submit information in 40 CFR 122.21(r)(2)-(13) as well as 40 CFR 125.98(f)(2) and (3) be waived from the permit renewal as the information submitted as part of the 2016 permit renewal and subsequent information in the June 2019 letter is still representative of the facility and operating conditions. The June 2019 letter also included supplemental information regarding entrainment at the facility. IDEM did not grant the permittee’s request to submit a reduced 316(b) application.

The permittee submitted a complete 316(b) application including a chosen method of compliance with impingement mortality standards pursuant to 40 CFR 122.21(r)(6) on June 30, 2021, as part of the NPDES permit renewal application.

The regulation also established requirements that build on existing CWA requirements to coordinate with the U.S. Fish and Wildlife Service prior to issuing NPDES permits. Pursuant to 40 CFR 125.98(h), upon receipt of an NPDES permit 316(b) application for an existing facility subject to the rule, the Director (IDEM) must forward a copy of the permit application to the appropriate Field Office of the U.S. Fish and Wildlife Service for a 60-day review. A copy of this permit application was sent to the Bloomington Field Office of the U.S. Fish and Wildlife Service on August 3, 2021. On October 6, 2021, IDEM received a response from Mr. Daniel Sparks of the U.S. Fish and Wildlife Service via email. Mr. Sparks stated that, "We [USFWS] have no ESA species in that stretch of the White River so we have no comments in that regard."

Much of the factual and narrative information presented below was taken, sometimes directly, from the permittee's 2021 316(b) application, as well as the 2016 316(b) application, and the supplemental letter from Citizens Energy Group dated June 27, 2019.

6.3.2 Facility and Cooling Water Intake Structure (CWIS) Description

A. Detailed Description

Perry K has one intake structure located on the east bank of the White River in Indianapolis, Indiana, about 625 feet downstream from the Washington Street Bridge and 1,250 feet upstream from the Oliver Avenue Bridge. The entrance to the intake structure is located at latitude 39° 43' 22.7" N and longitude 86° 10' 23.5" W. This intake structure provides water to Perry K for multiple uses, including in the steam production process, as well as for equipment cooling water.

The water intake is a reinforced concrete channel 15.0 feet wide and has a water depth of approximately 10.7 feet at a normal or typical water elevation of 674.2 ft-amsl. The water depth at the minimum water elevation is approximately 8.99 feet. The elevation of the floor of the intake channel is 663.5 ft-amsl, which is the elevation of the riverbed in front of the intake channel. The intake channel is set at nearly a right angle to the river channel with the intake channel angled slightly downstream. The upstream wall of the intake channel is eight feet longer than the downstream wall and extends about 30 feet into the river from the shoreline. The longer upstream wall acts as a diversion wall preventing floating debris from entering the intake channel. The shoreline on the downstream side of the intake channel has been rip-rapped out to the end of intake channel. The intake channel is 186 feet long and ends at the west-facing wall of the screen house. Trash racks are set at a 30° angle from vertical at the east end of the intake channel and entrance to the pump pit in the basement of the screen house.

Two chain belt traveling water screens are located about 20 feet beyond the trash racks. The water screens are 6.75 feet wide, and the screens are 29 feet tall measured from the centerline of the lower sprocket axle to the drive sprocket at the top of the chain belt. Each screen is made up of screen baskets that are approximately five feet wide and 1.5 feet high. The screen material in the baskets is 12-gauge Brown & Sharpe copper wire woven into 0.375-inch mesh screen material. Based upon a water depth in the screen well of 11 feet and 36% open area of the traveling water screen, the estimated through screen velocity is 1.2 fps at a design flow of 42.288 MGD and 1.6 fps at a design flow of 56.88 MGD.

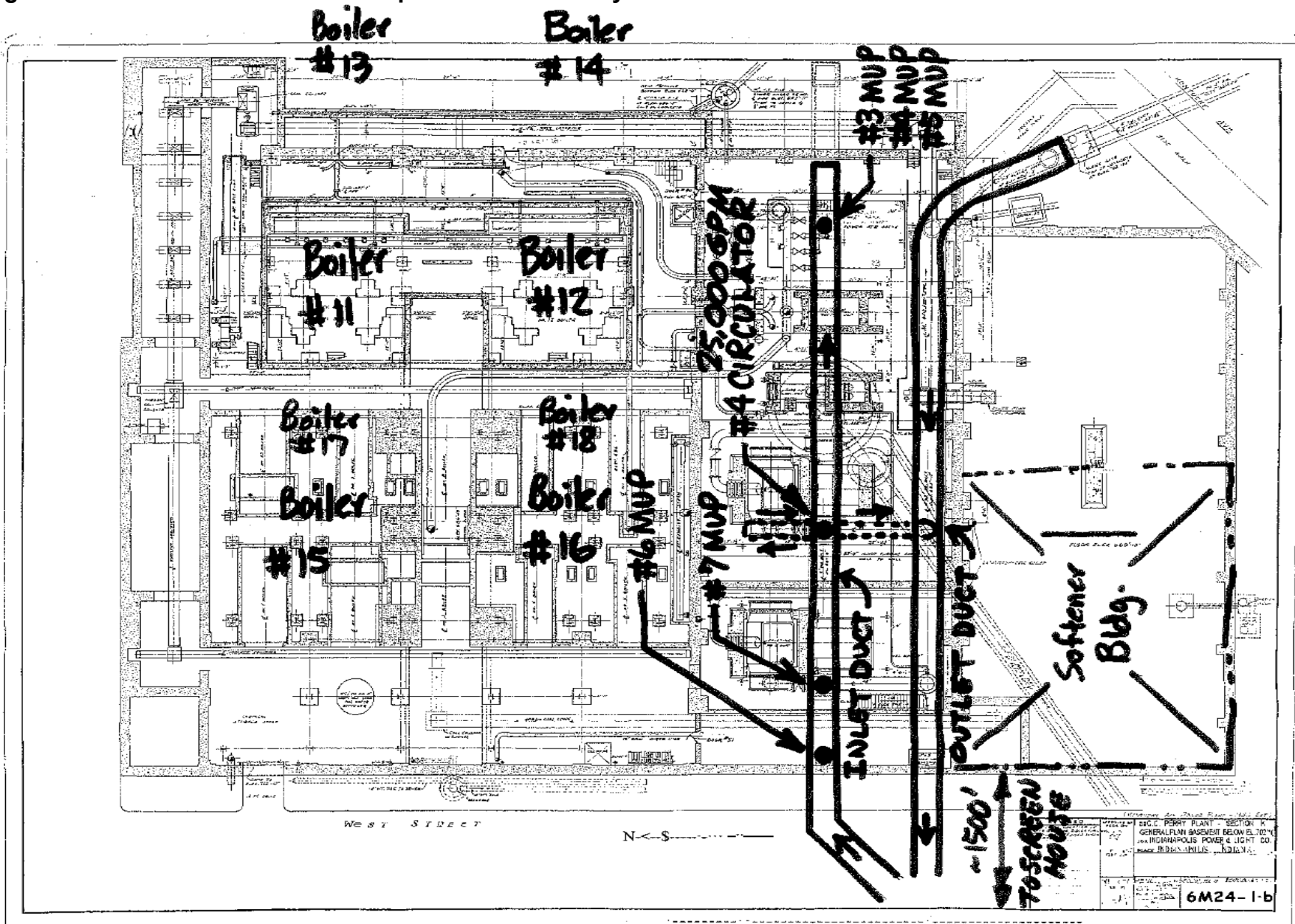
Debris, including fish and other aquatic organisms, that accumulates on the screens is carried up with the screen basket by a 0.33 feet wide lip on the bottom of each screen basket when the traveling water screens are rotated. As each screen panel reaches the top, a high-pressure spray wash is used to dislodge the material collected on the screens into a trash trough in front of the screens.

The stainless-steel trash trough is located on the north side of the screens. The water and debris flow along the trough and drop into a 4.0' (width) x 4.0' (depth) x 5.5' (height) basket where the debris is collected in a horizontal screen 1.5 feet from the top of the basket to be landfilled. The wash water flows through the basket into a concrete basin and is returned to the intake channel.

The water that passes through the traveling water screens in the screen house flows by gravity through a 72-inch diameter underground tunnel (the inlet duct) to Perry K. Once the water reaches the plant, it is pumped from pump wells located along the underground tunnel. The facility has five make-up water pumps and a circulator pump that pump water from the inlet duct to the facility. Make-up pumps 3-6 have a design capacity of 3000 gpm (4.32 MGD) each, and make-up pump 7 has a design capacity of 2500 gpm (3.6 MGD). The #4 circulator pump has a design capacity of 25000 gpm (36 MGD). The wastewater effluent from the Perry K plant is returned to the river via a second 72-inch diameter tunnel (the outlet duct). See Figure 3 below from the 2016 316(b) application submitted by Citizens.

The Perry K intake system is continuously operated with variable flow based on plant demand. Within the Perry K plant, a portion of the water from the intake structure will be directed to the softener process where it is treated for use as boiler feed water to produce steam, with the remaining water directed for other uses, including non-contact cooling applications. Steam produced in the boiler is sent to the steam distribution system or through the steam turbine to drive a generator to produce electricity. The steam exhausted from the steam turbine is condensed and returned to the plant process for reuse. Water used for condensing steam, bearing and sample coolers, and blow down water from the boiler is discharged back to the White River.

Figure 3: Intake/Outlet Duct and Pump Locations at Perry K



B. Intake Flows, Velocity of Intake Flows Through Submerged Intake Openings, Velocity of Intake Flows Through Traveling Screens and Area of Influence

The design intake flow for this facility is believed to be between 42.28 and 56.88 MGD. The maximum intake pumping capacity is 56.88 MGD; however, the permittee has informed that they cannot operate all of the pumps at the same time. The permittee calculated and provided an alternate design flow of 42.28 MGD which they calculated based on the maximum steam output of the facility. See figure 2, above. Over the five-year period from July 2016 through July 2021, the maximum reported daily intake flow was 39.9 MGD on June 1, 2019.

The actual intake flow, as defined under 40 CFR 125.92(a), is the average volume of water withdrawn on an annual basis by the cooling water intake structures over the past five years. The actual intake flow for the facility from July 2016 through June 2021 is 15.26 MGD. Although the facility operates continuously, the AIF differs from the DIF due to fluctuations in steam demand driven by weather and demand for comfort heating.

At the minimum water level of 8.99 feet the velocity in the intake channel is 0.485 fps at a design flow of 42.288 MGD and 0.653 fps at a design flow of 56.88 MGD. Both are based on the open area of the channel being 134.85 square feet. The estimated through-screen velocity is 1.2 fps at a design flow of 42.288 MGD and 1.6 fps at a design flow of 56.88 MGD. The river velocity past the intake structure varies with river discharge, and the water velocity into the intake structure varies with intake water flow.

6.3.3 Source Water Biological Characterization

The 316(b)-application submitted by Perry K in 2016 contained information on the fish community in the West Fork of the White River, near the discharge of Perry K. Fish sampling was conducted via electrofishing by the United States Geological Survey in cooperation with local entities at numerous locations on the White River, including a location referenced as the Morris Street station. The Morris Street location begins at about the Kentucky Avenue bridge and extends to approximately 1000 feet downstream of the Morris Street bridge. The sampling occurred in 1999, 2000, 2001, 2006, 2008, 2010, and 2012. This sampling location is approximately 1500 feet downstream of the discharge of Perry K. Fish sampling data from this Morris Street location was included as a table in the 2016 316(b) application and is included below as Table 1 (AECOM 2016).

In 2020, IDEM conducted fish community sampling in the White River both upstream and downstream of the Perry K facility. The Index of Biotic Integrity (IBI), a technique to help resource managers sample, evaluate and describe the condition of a river, was used to measure the health of the river. The upstream site located at New York Street, 1 river mile from the facility, had an IBI score of 46, which corresponds to a *good* biological condition. The downstream site located at Raymond Street, 1.8 river miles from the facility, had an IBI score of 36, which corresponds to a *fair* biological condition. A summary of the fish community survey is included below as Table 2. The Qualitative Habitat Evaluation Index (QHEI) is a method used for evaluating stream habitat quality that are important to fish communities. The New York Street

site had a QHEI score of 65, and the Raymond Street site scored a QHEI of 52. Anything over 50 is considered good.

Table 1: Fish Species Data from Morris Street Sampling Location

Fish Species Name	Average Standard Length (centimeters)	Average Fish Weight (grams)	Abundance	Rank
Gizzard Shad	17.7	105.1	233	3
Goldfish	23.9	580.5	12	21-22
Spotfin Shiner	6.6	5.3	120	5
Common Carp	45.5	2,261.8	69	12
Striped Shiner	10	1.1	7	27-28
Golden Shiner	11.0	27.7	8	25-26
Emerald Shiner	6.9	5.0	2	35-38
Silver Shiner	Not Available	1.4	3	30-34
Bluntnose Minnow	5.7	3.1	8	25-26
River Carpsucker	31.1	861.4	122	4
Quillback	29.2	724.1	37	14
Highfin Carpsucker	10.5	33.0	1	39-43
White Sucker	26.6	437.7	7	27-28
Northern Hogsucker	20.0	189.0	32	15
Smallmouth Buffalo	41.7	3,172.3	3	30-34
Bigmouth Buffalo	63.7	6,407.0	1	39-43
Black Buffalo	53.0	4,100.0	1	39-43
Spotted Sucker	23.0	295.2	100	8
Silver Redhorse	32.3	834.5	72	11
Black Redhorse	29.7	556.6	87	9
Golden Redhorse	27.6	508.9	116	6
Shorthead Redhorse	24.7	402.4	19	19
Channel Catfish	32.7	720.6	31	16
Flathead Catfish	41.6	2,148.9	6	29
Brook Silversides	Not Available	0.3	2	35-38
Yellow Bass	14.4	75.5	3	30-34
Striped Bass	12.9	50.7	3	30-34
Rock Bass	10.6	68.5	11	23
Green Sunfish	7.7	19.4	12	21-22
Orangespotted Sunfish	6.1	8.6	23	17
Bluegill	9.3	19.6	929	1
Longear Sunfish	8.5	19.7	717	2
Redear Sunfish	4.2	4.0	1	39-43
Smallmouth Bass	17.7	241.7	50	13
Spotted Bass	17.7	164.5	109	7
Largemouth Bass	18.5	292.3	79	10
White Crappie	20.8	259.0	3	30-34
Black Crappie	17.6	133.8	10	24
Greenside Darter	6.6	5.0	1	39-43

Fish Species Name	Average Standard Length (centimeters)	Average Fish Weight (grams)	Abundance	Rank
Logperch	10.2	13.4	14	20
Sauger	44.3	1,089.2	2	35-38
Walleye	12.5	421.8	2	35-38
Freshwater Drum	41.6	568.8	21	18

Summary of Fish Collection Data from:

Voelker, D.C., 2014. Benthic-invertebrate, fish-community, and streambed-sediment-chemistry data for streams in the Indianapolis metropolitan area, Indiana, 2009–2012: U.S. Geological Survey Data Series 819, 8 p.
<http://dx.doi.org/10.3133/ds819>

Voelker, David C., 2004. Biological Assessment of Streams in the Indianapolis Metropolitan Area, Indiana, 1999–2001, U.S. Geological Survey, prepared in cooperation with Indianapolis Department of Public Works, Office of Environmental Services, Water-Resources Investigations Report 03–4331, 56 pp.

Table 2: IDEM 2020 Fish Survey Results on West Fork of the White River at New York Street (left) and Raymond Street (right)

Common Name	Individual Fish Count	Common Name	Individual Fish Count
Black Crappie	4	Black Redhorse	2
Black Redhorse	3	Bluegill	36
Blackstripe Topminnow	1	Bluntnose Minnow	1
Bluegill	54	Channel Catfish	2
Bluntnose Minnow	8	Gizzard Shad	5
Channel Catfish	3	Golden Redhorse	1
Common Carp	13	Green Sunfish	1
Flathead Minnow	1	Greenside Darter	2
Flathead Catfish	2	Largemouth Bass	6
Freshwater Drum	3	Longear Sunfish	41
Gizzard Shad	3	Quillback	1
Golden Redhorse	12	River Carpsucker	2
Green Sunfish	1	Rock Bass	2
Greenside Darter	2	Silver Redhorse	3
Johnny Darter	1	Smallmouth Bass	1
Largemouth Bass	12	Spotfin Shiner	25
Logperch	7	Warmouth	1
Longear Sunfish	71		
Northern Hog Sucker	1		
Quillback	4		
Redear Sunfish	2		
Rock Bass	4		
Silver Redhorse	7		
Smallmouth Bass	16		
Spotfin Shiner	4		

6.3.4 Impingement and Entrainment– Aquatic Life Studies

The Perry K facility conducted a one-year impingement study from 2013-2014 which is explained in more detail below. No mussels were collected or identified during this 2013-2014 impingement study. No entrainment studies have been conducted by Perry K; however, Indianapolis Power & Light (IPL) Harding Street Station, located downstream of the Perry K facility, has conducted past entrainment studies.

A. Impingement

Perry K conducted an impingement study in 2013 and 2014. The impingement study was conducted by collecting the wash from the traveling water screens in a 24-hour period. At the beginning of the period the traveling screens were washed, and sampling basket cleaned, and after the 24-hour period ended, the screens were washed again, and all material was collected in the sampling basket. The fish were removed from the sampling basket and identified to species, measured, weighed, and recorded on data sheets. The study also recorded weather and flow data, as well as names of the field crew on the data sheets.

Two samples were collected in April 2013, four samples per month were collected in May, June, August, and September of 2013, five samples per month were collected in July and October of 2013, and one sample a month from November 2013 through March 2014 for a total of 33 samples. Six species of fish were collected over the sampling period, with a total of 11 fish collected. All of the fish were young-of-year except for one gizzard shad that was collected in February 2014. Table 3 below includes a summary of the fish collected and was taken directly from the 2016 316(b) application submitted by Perry K (AECOM 2016).

An annual estimated total of fish impingement was made by calculating a flow-weighted number of fish collected in the 24-hour sample and multiplying that number times the total flow during the period. The annual impingement estimate was 109 fish and is also included in Table 3 below.

B. Entrainment

The Perry K facility has not conducted any entrainment studies; however, studies have been conducted at the IPL Harding Street Station located less than five miles downstream of the Perry K facility. In the June 2019 supplemental letter, Perry K contends that the composition of ichthyoplankton that may be entrained at Perry K is likely similar to that of IPL Harding Street Station due to the close proximity of the stations, and because they include the species (bluegill, flathead catfish) that were most often impinged at the Perry K facility in the 2013-2014 impingement study. An entrainment study was done at IPL Harding Street Station in 2007 (URS 2008) and the data from that study was included in the June 2019 supplemental letter and is included as Figure 4.

Based on the IPL Harding Street Station data, entrainment at Perry K is likely dominated by eggs, most likely gizzard shad, with some larvae of the herring/menhaden/shad family. The lower AIF at Perry K compared to IPL Harding Street Station (15.26 MGD vs 100.8 MGD in 2007) should result in much lower estimated annual entrained organisms than those noted in Figure 4.

Figure 4: Data from 2007 Entrainment Study at IPL Harding Street Station

Indianapolis Power & Light Co.
An AES Company

Harding Street Station
IM&E Report
August 2008

Table 5
Taxon Collected in Current Entrainment Sampling and Annualized Numbers at HSS
January 2007 through December 2007

Taxon	Scientific Name	Number Collected	Estimated Annual Entrainment
Unidentified		133	2,288,281
Herrings	Clupeidae sp.	102	1,690,006
Sucker sp.	Catostomidae sp.	59	2,279,753
Bluegill	Lepomis macrochirus	32	455,869
Sunfish sp.	Centrarchidae sp.	22	356,204
Drums	Sciaenidae sp.	21	349,183
Lepomis sp.	Lepomis sp.	8	107,094
Carp and Minnows	Cyprinidae sp.	7	105,324
Gizzard shad	Dorosoma cepedianum	6	260,599
Perches	Percidae sp.	6	352,087
Morone sp.	Morone sp.	2	20,194
Bullhead sp.	Ameiurus sp.	1	9,675
Bullhead minnow	Pimephales vigilax	1	9,232
Channel catfish	Ictalurus punctatus	1	9,232
Catfish sp.	Ictaluridae sp.	1	9,281
Forktail catfish sp.	Ictalurus sp.	1	9,675
Shiner sp.	Notropis sp.	1	12,531
Total Larvae		404	8,324,220
Fish egg		2,747	61,337,540
Grand Total		3,151	69,661,760

Table 3: Impingement Data Collected at Perry K (2013-2014)

Start Date and Time	End Date and Time	Sample Duration (hours)	Cooling Water Flow Rate (gal./min)	Sample Volume (million gal.)	Species	Length (mm)	Weight (g)	Impingement Rate		Extrapolation Period			Extrapolation Volume (million gal.)	Estimated Impingement for Extrapolation Period	
								# per million gal.	Kg per million gal.	From	To	# Days		Number	Kg
4/15/13 9:00	4/16/13 12:35	27.58	2,091	3.460605	Bluegill	35	1	0.288967	0.000289	3/31/13	4/17/13	18	54.198720	15.7	0.016
4/29/13 7:00	4/30/13 10:55	27.92	2,091	3.502425	Bluegill	32	1	0.285516	0.000286	4/18/13	5/4/13	17	51.187680	14.6	0.015
5/8/13 7:00	5/9/13 10:40	27.67	2,280	3.784800	White Crappie	55	2	0.264215	0.000528	5/5/13	5/11/13	7	22.982400	6.1	0.012
5/14/13 6:15	5/15/13 10:40	28.42	2,214	3.774870	Longear Sunfish	49	2	0.264910	0.000530	5/12/13	5/18/13	7	22.317120	5.9	0.012
5/22/13 7:00	5/23/13 10:58	27.97	2,373	3.981894	No Fish	--	0	0.000000	0.000000	5/19/13	5/25/13	7	23.919840	0.0	0.000
5/28/13 6:15	5/29/13 10:20	28.08	2,070	3.487950	No Fish	--	0	0.000000	0.000000	5/26/13	6/1/13	7	20.865600	0.0	0.000
6/4/13 7:00	6/5/13 9:35	26.58	2,599	4.145405	Lepomis spp.	38	1	0.241231	0.000241	6/2/13	6/8/13	7	26.197920	6.3	0.006
6/11/13 8:00	6/12/13 10:10	26.17	2,904	4.559280	Bluegill	81	11	0.219333	0.002413	6/9/13	6/15/13	7	29.272320	6.4	0.071
6/18/13 11:30	6/19/13 12:00	24.50	6,912	10.160640	Orangespotted Sunfish	52	3	0.098419	0.000295	6/16/13	6/22/13	7	69.672960	6.9	0.021
6/26/13 10:45	6/27/13 10:40	23.92	1,300	1.865500	No Fish	--	0	0.000000	0.000000	6/23/13	6/29/13	7	13.104000	0.0	0.000
7/2/13 7:30	7/3/13 9:50	26.33	1,724	2.723920	No Fish	--	0	0.000000	0.000000	6/30/13	7/6/13	7	17.377920	0.0	0.000
7/9/13 9:00	7/10/13 10:00	25.00	4,162	6.243000	No Fish	--	0	0.000000	0.000000	7/7/13	7/13/13	7	41.952960	0.0	0.000
7/16/13 7:30	7/17/13 10:00	26.50	3,697	5.878230	No Fish	--	0	0.000000	0.000000	7/14/13	7/20/13	7	37.265760	0.0	0.000
7/23/13 9:30	7/24/13 9:35	24.08	1,767	2.553315	No Fish	--	0	0.000000	0.000000	7/21/13	7/27/13	7	17.811360	0.0	0.000
7/31/13 9:30	8/1/13 9:30	24.00	2,063	2.970720	Flathead Catfish	53	2	0.336619	0.000673	7/28/13	8/3/13	7	20.795040	7.0	0.014
8/7/13 10:00	8/8/13 12:25	26.42	2,579	4.087715	No Fish	--	0	0.000000	0.000000	8/4/13	8/10/13	7	25.996320	0.0	0.000
8/14/13 10:00	8/15/13 10:15	24.25	6,374	9.274170	No Fish	--	0	0.000000	0.000000	8/11/13	8/17/13	7	64.249920	0.0	0.000
8/20/13 9:30	8/21/13 10:00	24.50	5,183	7.619010	No Fish	--	0	0.000000	0.000000	8/18/13	8/24/13	7	52.244640	0.0	0.000
8/27/13 10:00	8/28/13 10:15	24.25	4,503	6.551865	No Fish	--	0	0.000000	0.000000	8/25/13	8/31/13	7	45.390240	0.0	0.000
9/3/13 9:30	9/4/13 10:00	24.50	4,068	5.979960	No Fish	--	0	0.000000	0.000000	9/1/13	9/7/13	7	41.005440	0.0	0.000
9/10/13 9:00	9/11/13 9:25	24.42	4,207	6.163255	Flathead Catfish	92	9	0.162252	0.001460	9/8/13	9/14/13	7	42.406560	6.9	0.062
9/17/13 9:00	9/18/13 9:25	24.42	3,993	5.849745	No Fish	--	0	0.000000	0.000000	9/15/13	9/21/13	7	40.249440	0.0	0.000
9/24/13 9:00	9/25/13 10:30	25.50	3,328	5.091840	No Fish	--	0	0.000000	0.000000	9/22/13	9/28/13	7	33.546240	0.0	0.000
10/1/13 9:00	10/2/13 9:50	24.83	3,664	5.459360	No Fish	--	0	0.000000	0.000000	9/29/13	10/5/13	7	36.933120	0.0	0.000
10/8/13 9:30	10/9/13 10:30	25.00	3,566	5.349000	No Fish	--	0	0.000000	0.000000	10/6/13	10/12/13	7	35.945280	0.0	0.000
10/15/13 9:00	10/16/13 9:40	24.67	4,584	6.784320	Flathead Catfish	105	14	0.147399	0.002064	10/13/13	10/19/13	7	46.206720	6.8	0.095
10/22/13 9:00	10/23/13 9:45	24.75	4,444	6.599340	No Fish	--	0	0.000000	0.000000	10/20/13	10/26/13	7	44.795520	0.0	0.000
10/29/13 9:00	10/30/13 9:50	24.83	4,272	6.365280	No Fish	--	0	0.000000	0.000000	10/27/13	11/2/13	7	43.061760	0.0	0.000
11/12/13 9:00	11/13/13 10:45	25.75	3,621	5.594445	No Fish	--	0	0.000000	0.000000	11/3/13	11/30/13	28	145.998720	0.0	0.000
12/10/13 9:00	12/11/13 10:30	25.50	3,331	5.096430	No Fish ^{a)}	--	0	0.000000	0.000000	12/1/13	12/28/13	28	134.305920	0.0	0.000
1/15/14 9:00	1/16/14 11:30	26.50	4,072	6.474480	No Fish	--	0	0.000000	0.000000	12/29/13	2/1/14	35	205.228800	0.0	0.000
2/12/14 9:00	2/13/14 10:00	25.00	4,701	7.051500	Gizzard Shad	165	45	0.141814	0.006382	2/2/14	3/1/14	28	189.544320	26.9	1.210
3/10/14 9:00	3/11/14 10:45	25.75	3,803	5.875635	No Fish	--	0	0.000000	0.000000	3/2/14	3/29/14	28	153.336960	0.0	0.000
Totals	33	845.55		174.359904	6 Species	11	91					364	1,849.367520	109.4	1.533

a) One Gizzard Shad was collected, but was omitted because it was in advanced stages of decomposition.

6.3.5 Protected Species Susceptible to Impingement and Entrainment

There are no federally listed endangered or threatened mussel or fish species in Marion County according to the United States Fish and Wildlife Service. The Indiana Department of Natural Resources has listed seventeen species of mussels and fish that are endangered, threatened, or of special concern in Marion County (Indiana DNR 2020). A list of the species is included in Table 4 below.

Table 4: Threatened/Endangered Species in Marion County, Indiana

Scientific Name	Common Name	State Status
<i>Alasmidonta viridis</i>	Slippershell Mussel	Special Concern
<i>Cyprogenia stegaria</i>	Eastern Fanshell Pearlymussel	Endangered
<i>Epioblasma obliquata perobliqua</i>	White catspaw	Endangered
<i>Epioblasma rangiana</i>	Northern Riffleshell	Endangered
<i>Epioblasma triquetra</i>	Snuffbox	Endangered
<i>Eurynia dilatata</i>	Spike	Special Concern
<i>Lampsilis fasciola</i>	Wavyrayed Lampmussel	Special Concern
<i>Obovaria subrotunda</i>	Round Hickorynut	Endangered
<i>Plethobasus cyphus</i>	Sheepnose	Endangered
<i>Pleurobema clava</i>	Clubshell	Endangered
<i>Pleurobema plenum</i>	Rough Pigtoe	Endangered
<i>Ptychobranchus fasciolaris</i>	Kidneyshell	Special Concern
<i>Theliderma cylindrica</i>	Rabbitsfoot	Endangered
<i>Toxolasma lividus</i>	Purple Lilliput	Special Concern
<i>Villosa iris</i>	Rainbow	Special Concern
<i>Villosa lienosa</i>	Little Spectaclecase	Special Concern
<i>Percina evides</i>	Gilt Darter	Endangered

No Gilt Darters were collected in the impingement study at the Perry K facility (AECOM 2016); however, the study did not include mussels, so it is unknown if any of the state-listed species below had been impinged. The USGS fish surveys did not record any Gilt Darters at the Morris Street sampling location (AECOM 2016), and the two IDEM fish community surveys at New York Street and Raymond Street did not include any Gilt Darters.

The U.S. Fish and Wildlife Service has reviewed the permittee's 316(b) submission and the response received from the Service stated, "We [USFWS] have no ESA species in that stretch of the White River so we have no comments in that regard."

6.3.6 Best Technology Available (BTA) Determinations

A. Impingement BTA

Under 40 CFR 125.94(c) existing facilities subject to the rule must comply with one of the following seven BTA Standards for Impingement Mortality:

1. Operate a closed-cycle recirculating system as defined at 40 CFR §125.92;
2. Operate a CWIS that has a maximum design through-screen design intake velocity of 0.5 fps;
3. Operate a CWIS that has a maximum actual through-screen intake velocity of 0.5 fps;
4. Operate an offshore velocity cap that is a minimum of 800 feet offshore;
5. Operate a modified traveling screen that the Director (IDEM) determines meets the definition of the rule (at §125.92(s)) and that the Director (IDEM) determines is BTA for impingement reduction;
6. Operate any other combination of technologies, management practices, and operational measures that the Director (IDEM) determines is BTA for impingement reduction; or
7. Achieve the specified impingement mortality performance standard of less than 24 percent.

The permittee has proposed to comply with alternative 6, above. Under this alternative, the permittee facility must operate a system of technologies, management practices, and operational measures, that, after review of the information required in the impingement technology performance optimization study at 40 CFR 122.21(r)(6)(ii), IDEM determines is the best technology available for impingement reduction at your cooling water intake structures. As the basis for IDEM's determination, the permittee must demonstrate the system of technology has been optimized to minimize impingement mortality of all non-fragile species. In addition, IDEM's decision will be informed by comparing the impingement mortality performance data under 40 CFR 122.21(r)(6)(ii)(D) to the impingement mortality performance standard that would otherwise apply under 40 CFR 125.94(c)(7). IDEM must include verifiable and enforceable permit conditions that ensure the system of technologies will perform as demonstrated.

The facility proposed to conduct a single-year impingement study that would be similar in design and scope to the study performed at the facility in 2013-2014 in place of the impingement technology optimization study required by 40 CFR 125.94(c)(6) and 40 CFR 122.21(r)(6)(ii). EPA's 316(b) regulations were not published until August 15, 2014; therefore, the requirements applicable to an impingement technology performance optimization study were not available to the permittee when they conducted their impingement study in 2013-2014. In addition, the permittee was not attempting to conduct an optimization study at all. Therefore, the permittee's study necessarily did not comply with all the aspects of the impingement technology performance optimization study requirements.

Specifically, under 40 CFR 122.21(r)(6)(ii), an impingement technology performance optimization study consists of the following:

The *impingement technology performance optimization study* must include biological data measuring the reduction in impingement mortality achieved by operation of the system of technologies, operational measures, and best management practices, and demonstrating that operation of the system has been optimized to minimize impingement mortality. This system of technologies, operational measures and best management practices may include flow reductions, seasonal operation, unit closure, credit for intake location, and behavioral deterrent systems. The applicant must document how each system element contributes to the system's performance. The applicant must include a minimum of two

years of biological data measuring the reduction in impingement mortality achieved by the system. The applicant must also include a description of any sampling or data collection approach used in measuring the rate of impingement, impingement mortality, or flow reductions.

(A) Rate of Impingement. If the demonstration relies in part on a credit for reductions in the rate of impingement in the system, the applicant must provide an estimate of those reductions to be used as credit towards reducing impingement mortality, and any relevant supporting documentation, including previously collected biological data, performance reviews, and previously conducted performance studies not already submitted to the Director. The submission of studies more than 10 years old must include an explanation of why the data are still relevant and representative of conditions at the facility and explain how the data should be interpreted using the definitions of impingement and entrapment at 40 CFR 125.92(n) and (j), respectively. The estimated reductions in rate of impingement must be based on a comparison of the system to a once-through cooling system with a traveling screen whose point of withdrawal from the surface water source is located at the shoreline of the source waterbody. For impoundments that are waters of the United States in whole or in part, the facility's rate of impingement must be measured at a location within the cooling water intake system that the Director deems appropriate. In addition, the applicant must include two years of biological data collection demonstrating the rate of impingement resulting from the system. For this demonstration, the applicant must collect data no less frequently than monthly. The Director may establish more frequent data collection.

(B) Impingement Mortality. If the demonstration relies in part on a credit for reductions in impingement mortality already obtained at the facility, the applicant must include two years of biological data collection demonstrating the level of impingement mortality the system is capable of achieving. The applicant must submit any relevant supporting documentation, including previously collected biological data, performance reviews, and previously conducted performance studies not already submitted to the Director. The applicant must provide a description of any sampling or data collection approach used in measuring impingement mortality. In addition, for this demonstration the applicant must:

- (1) Collect data no less frequently than monthly. The Director may establish more frequent data collection;
- (2) Conduct biological data collection that is representative of the impingement and the impingement mortality at an intake subject to this provision. In addition, the applicant must describe how the location of the cooling water intake structure in the waterbody and the water column are accounted for in the points of data collection;
- (3) Include a taxonomic identification to the lowest taxon possible of all organisms to be collected;
- (4) Describe the method in which naturally moribund organisms are identified and taken into account;

(5) Describe the method in which mortality due to holding times is taken into account; and

(6) If the facility entraps fish or shellfish, a count of the entrapment, as defined at 40 CFR 125.92(j), as impingement mortality.

(C) Flow reduction. If the demonstration relies in part on flow reduction to reduce impingement, the applicant must include two years of intake flows, measured daily, as part of the demonstration, and describe the extent to which flow reductions are seasonal or intermittent. The applicant must document how the flow reduction results in reduced impingement. In addition, the applicant must describe how the reduction in impingement has reduced impingement mortality.

(D) Total system performance. The applicant must document the percent impingement mortality reflecting optimized operation of the total system of technologies, operational measures, and best management practices and all supporting calculations. The total system performance is the combination of the impingement mortality performance reflected in paragraphs (r)(6)(ii)(A), (B), and (C) of this section.

As an example of a difference between the regulatory requirements and the study conducted by the permittee prior to the date that the regulations were published, apparently the 2013-2014 study only considered fish and did not include shellfish, such as mussels in the study. Therefore, IDEM is requiring the permittee to conduct a single year study that is fully compliant with all the regulatory requirements applicable to an impingement technology optimization study. Prior to conducting this study, the permittee will be required to submit to IDEM for review and approval, a study plan detailing how the permittee intends to conduct this study.

B. Entrainment BTA

For existing facilities, EPA did not identify any single technology or group of technology controls as available and feasible for establishing national performance standards for entrainment. Instead, EPA's regulations require the permitting agency to make a site-specific determination of the best technology available standard for entrainment for each individual facility. See 40 CFR 125.94(d).

EPA's regulations put in place a framework for establishing entrainment requirements on a site-specific basis, including the factors that must be considered in the determination of the appropriate entrainment controls. These factors include the number of organisms entrained, emissions changes, land availability, and remaining useful plant life as well as social benefits and costs of available technologies when such information is of sufficient rigor to make a decision. These required factors are listed under 40 CFR 125.98(f)(2).

EPA's regulations also establish factors that may be considered when establishing site-specific entrainment BTA requirements, including: entrainment impacts on the waterbody, thermal discharge impacts, credit for flow reductions associated with unit retirements,

impacts on reliability of energy delivery, impacts on water consumption, and availability of alternative sources of water. (40 CFR 125.98(f)(3))

After considering all the factors that must and may be considered by the federal rules (see discussion below) IDEM finds that the existing facility meets BTA for entrainment.

However, IDEM is proposing to require the permittee to conduct one year of entrainment sampling during the months of April through September of a single calendar year. Prior to conducting this study, the permittee will be required to submit to IDEM for review and approval, a study plan detailing how the permittee intends to conduct this study. The entrainment study plan shall conform to the entrainment characterization study requirements specified in 40 CFR 122.21(r)(9). This entrainment sampling is needed to validate conclusions on the numbers of organisms actually entrained at the permittee's facility. IDEM believes that this additional sampling is warranted due to the age of the study conducted at IPL Harding Street (2007) and to gather site-specific data on entrainment at the facility.

The majority of the information presented in the below sections regarding the 'Must' and 'May' factors was taken directly from the letter dated June 27, 2019, from the permittee.

Must and May Factor Discussion (40 CFR 125.98(f)(2) and (3))

1. MUST FACTORS (40 CFR 125.98(f)(2))

i. Numbers and types of organisms entrained, including, specifically, the numbers and species (or lowest taxonomic classification possible) of Federally listed, threatened, and endangered species, and designated critical habitat (e.g., prey base);

No entrainment characterization studies have been conducted at Perry K. The composition of ichthyoplankton that may be entrained at Perry K is likely like that entrained at IPL Harding Street Station (NPDES Permit No. IN0004685) located less than five miles downstream of Perry K.

ii. Impact of changes in particulate emissions or other pollutants associated with entrainment technologies;

The operation of fine-mesh screens with a fish return or narrow-slot wedgewire screens would not directly result in any particulate emissions, but construction activities during the installation of either technology would result in some air pollutant emissions from truck traffic, mobile construction equipment, etc. The additional electrical power needed to operate the screens would result in added grid-wide emissions; however, this increase is expected to be minor.

Cooling towers produce drift and air pollutant emissions; however, a retrofit to a closed-cycle cooling system is not feasible at Perry K.

iii. Land availability insofar as it relates to the feasibility of entrainment technology:

There is insufficient land available on the Perry K property to accommodate a mechanical-draft cooling tower, even if the technology was feasible at Perry K. Land availability should not be an issue for fine-mesh screens with a fish return or narrow-slot wedgewire screens; however, wedgewire screens would be placed in the river, disturbing habitat and require additional permitting.

iv. Remaining useful plant life; and

There are no plans to retire Perry K in the immediate future.

v. Quantified and qualitative social benefits and costs of available entrainment technologies when such information on both benefits and costs is of sufficient rigor to make a decision.

The number of fish entrained at Perry K is expected to be minor based on the AIF and entrainment data collected by a nearby facility. Perry K only withdraws between 1% and 2% of the West Fork of the White River flow based on AIF. Thus, 98% of the ichthyoplankton bypass the plant. The small percentage entrained would result in minimal adverse environmental impact. Based on the composition of entrained organisms at the nearby facility, the dominant life stage entrained are fish eggs.

The dominant identified larvae in the IPL Harding Street entrainment study were shad, which are forage species with little recreational value; therefore, the benefit of any entrainment reduction technology to protect the shad larvae would be almost zero. Compared to the estimated costs for installation of the lowest-cost entrainment reduction technology, fine-mesh screens (\$1.6 million or more), the costs far outweigh the benefits of entrainment reduction technologies.

2. MAY FACTORS (40 CFR 125.98(f)(3))

i. Entrainment impacts on the waterbody:

Entrainment reduction by installation of a closed-cycle system would be minimal because a low percentage of water used is for non-contact cooling purposes.

ii. Thermal discharge impacts:

Perry K complies with the thermal effluent requirements in the current NPDES permit. Retrofit to a closed-cycle recirculating system would not provide any additional substantial biological benefit. Installation of fine-mesh screens would not reduce the thermal discharge temperature.

iii. Unit retirement within the ten years preceding October 14, 2014:

No units have been retired at Perry K within the last ten years proceeding October 14, 2014.

iv. Impacts on the reliability of energy delivery within the immediate area:

Citizens Energy Group is the sole supplier of steam to the district energy system. In order to reliably provide steam, Perry K needs a dependable supply of water. Fine-mesh traveling screens or narrow-slot wedgewire screens may be prone to fouling and clogging, potentially disrupting the reliability of the water supply. Both technologies would be designed with cleaning systems however, during high debris events, some screen fouling may occur.

Perry K does not supply electricity to the regional grid, but the facility does generate electricity to offset internal demands from the electric grid. A retrofit to cooling towers, if feasible, would increase demand on the regional grid due to the additional electrical and maintenance requirements needed to operate the major cooling tower components. Operation of fine-mesh screens or narrow-slot wedgewire screens may affect the internal system reliability if debris-related fouling resulted in the need for frequent screen bypass. Additional power needed to operation the traveling screens continuously and to operate the wedgewire screens cleaning system would increase demand from the regional grid.

v. Impacts on water consumption; and

The installation of narrow-slot wedgewire screens or modified fine-mesh screens with a fish return would not cause any significant changes to water consumption.

A retrofit to closed-cycle cooling is not feasible at Perry K because only a small portion of the intake flow is currently used exclusively in once-through cooling; the majority of the flow is used in other system processes. If a retrofit to a closed-cycle system was feasible, the consumption of water lost to evaporation would increase, even though water withdrawal would decrease.

vi. Availability of process water, gray water, wastewater, reclaimed water, or other waters of appropriate quantity; and quality for reuse as cooling water

The current Perry K operations re-use some process water internal to the plant operations. Blowdown from the water softener in the boiler water make-up system is piped to the water clarifier to remove solids and the clarified water is piped back to the water softener. Non-contact cooling water is used in the House Generator condenser before it flows to the water softener where it utilizes the heat from the condensing process in the turbine to make the water softener process more efficient.

6.3.7 Best Technology Available (BTA) Impingement and Entrainment Determination Summary

IDEM concurs with the permittee's selection of BTA impingement alternative 40 CFR 125.94(c)(6); operate a system of technologies, management practices, and operational measures, that, after review of the information required in the *impingement technology performance optimization study* at 40 CFR 122.21(r)(6)(ii), IDEM determines is the best technology available for impingement reduction at the permittee's cooling water intake structures.

After considering all the factors that must and may be considered by the federal rules (see discussion above), IDEM finds that the existing facility meets the BTA for entrainment mortality. This is primarily based on the following factors:

1. Relatively minor volume of intake flow relative to the flow in the West Fork of the White River;
2. The number and species of organisms projected to be entrained by the facility;
3. The proportion of intake flow that passes through the plant via the #4 circulator pump without going through the condensers; and
4. The requirement that the permittee conduct an entrainment study to validate IDEM's conclusions regarding entrainment.

6.3.8 Permit Conditions

The permittee must comply with the following cooling water intake structure requirements:

1. In accordance with 40 CFR 125.98(b)(1), nothing in this permit authorizes take for the purposes of a facility's compliance with the Endangered Species Act.
2. The permittee must at all times properly operate and maintain the cooling water intake structure and associated intake equipment.
3. The permittee must inform IDEM of any proposed changes to the CWIS or proposed changes to operations at the facility that affect the information taken into account in the current BTA evaluation.
4. Any discharge of intake screen backwash must meet the Minimum Narrative Limitations contained in Part I.B of the permit. There must be no discharge of debris from intake screen washing which will settle to form objectionable deposits which are in amounts sufficient to be unsightly or deleterious, or which will produce colors or odors constituting a nuisance.
5. At a minimum frequency of daily, the permittee must monitor the intake flow. These daily measurements must be reported at Outfall 001 on the MMR with the monthly results summarized on the DMRs that are submitted every month.

6. As soon as practicable but no later than twelve months after the effective date of the permit, the permittee shall submit to IDEM for review and approval a study plan including a schedule for obtaining information required by the impingement technology optimization study required by 40 CFR 125.94(c)(6) and 40 CFR 122.21(r)(6)(ii), except that only one year of biological monitoring is required at this time. After approval by IDEM, the permittee shall conduct the approved impingement technology optimization study. The study plan must be able to demonstrate that the technology is or will be optimized to minimize impingement mortality of all non-fragile species. The permittee shall submit the final technology optimization study report, within 90 days of completing the year of sampling. The permit may be modified to include verifiable and enforceable permit conditions that ensure the technology will perform as demonstrated or to include additional studies or other requirements if the results of the study warrant these steps.
7. As soon as practicable but no later than twelve months after the effective date of the permit, the permittee shall submit to IDEM for review and approval a study plan including a schedule for the conduct of one year of entrainment sampling, beginning on or before April 1 and lasting at a minimum through September 30 of the sampling year. The entrainment study plan shall conform to the entrainment characterization study requirements specified in 40 CFR 122.21(r)(9). After approval by IDEM, the permittee shall conduct the approved entrainment sampling study. The entrainment sampling shall be completed, and results submitted to IDEM within 36 months of the effective date of the permit.
8. The permittee must either conduct visual inspections or employ remote monitoring devices during the period the cooling water intake structure is in operation as required by 40 CFR 125.96(e). The permittee must conduct such inspections at least weekly to ensure that any technologies operated to comply with 40 CFR 125.94 are maintained and operated to function as designed including those installed to protect Federally listed threatened or endangered species or designated critical habitat. Alternative procedures can be approved if this requirement is not feasible (e.g., an offshore intake, velocity cap, or during periods of inclement weather).
9. In accordance with 40 CFR 125.97(c), by January 31 of each year, the permittee must submit to the Industrial NPDES Permit Section IDEM-OWQ an annual certification statement for the preceding calendar year signed by the responsible corporate officer as defined in 40 CFR 122.22 (see 327 IAC 5-2-22) subject to the following:
 - a. If the information contained in the previous year's annual certification is still pertinent, you may simply state as such in a letter to IDEM and the letter, along with any applicable data submission requirements specified in this section shall constitute the annual certification.
 - b. If you have substantially modified operation of any unit at your facility that impacts cooling water withdrawals or operation of your cooling water intake structures, you must provide a summary of those changes in the report. In addition, you must submit revisions to the information required at 40 CFR 122.21(r) in your next permit application.

10. Best technology available (BTA) determinations for entrainment mortality and impingement mortality at cooling water intake structures will be made in each permit reissuance in accordance with 40 CFR 125.90-98. The permittee must submit all the information required by the applicable provisions of 40 CFR 122.21(r)(2) through (r)(8) with the next renewal application. Since the permittee has submitted the studies required by 40 CFR 122.21(r), the permittee may, in subsequent renewal applications pursuant to 40 CFR 125.95(c), request to reduce the information required if conditions at the facility and in the waterbody remain substantially unchanged since the previous application so long as the relevant previously submitted information remains representative of the current source water, intake structure, cooling water system, and operating conditions. Any habitat designated as critical or species listed as threatened or endangered after issuance of the current permit whose range of habitat or designated critical habitat includes waters where a facility intake is located constitutes potential for a substantial change that must be addressed by the owner/operator in subsequent permit applications, unless the facility received an exemption pursuant to 16 U.S.C. 1536(o) or a permit pursuant to 16 U.S.C. 1539(a) or there is no reasonable expectation of take. The permittee must submit the request for reduced cooling water intake structure and waterbody application information at least **two years and six months** prior to the expiration of the NPDES permit. The request must identify each element in this subsection that it determines has not substantially changed since the previous permit application and the basis for the determination. IDEM has the discretion to accept or reject any part of the request.
11. The permittee shall submit and maintain all the information required by the applicable provisions of 40 CFR 125.97.
12. All required reports must be submitted to the IDEM, Office of Water Quality, NPDES Permits Branch, Industrial NPDES Permit Section at OWQWWPER@idem.in.gov and the Compliance Branch at wwReports@idem.in.gov.

6.3.9 References

AECOM. C.C. Perry K Steam Plant Report on the Assessment of Best Technology Available for Minimizing Adverse Environmental Impact under § 316(b) of the Clean Water Act. June 29, 2016. (AECOM 2016).

Indiana County Endangered, Threatened, and Rare Species List. County: Marion. https://www.in.gov/dnr/nature-preserves/files/np_marion.pdf. (Indiana DNR 2020).

URS Corporation. Impingement Mortality and Entrainment Characterization Study. August 2008. (URS 2008).

6.4 Spill Response and Reporting Requirement

Reporting requirements associated with the Spill Reporting, Containment, and Response requirements of 327 IAC 2-6.1 are included in Part II.B.2.(d), Part II.B.3.(c), and Part II.C.3. of the NPDES permit. Spills from the permitted facility meeting the definition of a spill under 327 IAC 2-6.1-4(15), the applicability requirements of 327 IAC 2-6.1-1, and the Reportable Spills requirements of 327 IAC 2-6.1-5 (other than those meeting an exclusion under 327 IAC 2-6.1-3 or the criteria outlined below) are subject to the Reporting Responsibilities of 327 IAC 2-6.1-7.

It should be noted that the reporting requirements of 327 IAC 2-6.1 do not apply to those discharges or exceedances that are under the jurisdiction of an applicable permit when the substance in question is covered by the permit and death or acute injury or illness to animals or humans does not occur. In order for a discharge or exceedance to be under the jurisdiction of this NPDES permit, the substance in question (a) must have been discharged in the normal course of operation from an outfall listed in this permit, and (b) must have been discharged from an outfall for which the permittee has authorization to discharge that substance.

6.5 Permit Processing/Public Comment

Pursuant to IC 13-15-5-1, IDEM will publish the draft permit document online at <https://www.in.gov/idem/public-notices/>. Additional information on public participation can be found in the "Citizens' Guide to IDEM", available at <https://www.in.gov/idem/resources/citizens-guide-to-idem/>. A 30-day comment period is available to solicit input from interested parties, including the public.